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STUDIES OF THE WORLD GYPONINAE
(HOMOPTERA, CICADELLIDAE)

A SYNOPSIS OF THE GENUS PONANA

By

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STUDIES OF THE WORLD GYPONINAE
(HOMOPTERA, CICADELLIDAE)

A SYNOPSIS OF THE GENUS PONANA¹

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INTRODUCTION

In 1920 Ball made the first attempt to review and revise the genus Gypona. He suggested the grouping of previously described species and proposed five subgeneric names, one of which was Ponana. He placed fourteen species in Ponana. Seven of these are still included in Ponana and several which Ball treated as subspecies or synonyms have been given specific ranking. This is partially due to the fact that he misidentified several of the Spangberg and Stal species.

In 1942, DeLong reviewed the North American species of Gyponinae and recognized Ponana as a genus, placing twenty-six species in this group, six of which were described as new. Eleven previously described species were placed in synonymy. DeLong also described the genus Bulbana and four species closely related to Ponana.

In 1949 Oman recognized twenty-one species of Ponana in his treatment of the Nearctic Leafhoppers and treated Bulbana as a subgenus of Ponana.

In 1962 Metcalf, in his general catalogue of the Homoptera, Fascicle VI, part 3, the Gyponinae, placed seventy-five species in Ponana. Since he did not have the opportunity of examining the types of the European authors he misplaced several species generically.

The present treatment has indicated that there are at least three groups of closely related species which are treated here as subgenera of Ponana. The largest of these is the subgenus Ponana which contains some fifty-five species occurring in North and Central America. The subgenus Bulbana contains four known species which occur in the southwestern United States and probably will be found in northern Mexico. A third group described below as the subgenus Neoponana contains some fourteen species found in countries of South and Central America, none of which have apparently been described previously. On this basis some seventy-three species have been assigned to the genus Ponana. Several species previously placed in Ponana have been assigned to other genera and will be treated in subsequent generic reports.

The species of Ponana and its closely related generic relatives possess an aedeagus composed of a central shaft which arises ventrally at the base and a

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pair of structures which arise dorsally near the base, bend ventrally and usually extend caudally close to the shaft, forming a sheath for it. These structures have previously been referred to as the lateral paired processes and by other similar designations. The name *aedalati* is proposed for these portions of the aedeagus and this term has been used in the following discussions.

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A study of the World *Gyponinae* would have been impossible without the assistance and cooperation of several persons and the use of specimens in several museums and university collections.

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Genus Ponana Ball

Head distinctly narrower than pronotum, anterior margin blunt, usually broadly rounded. Crown short, but always longer medially than next the eyes, with transverse striae of variable size. Ocelli large on anterior portion. Pronotum with lateral margins carinate, surface transversely striate. Forewings with normal venation and a distinct appendix. Male plates variable in shape and size. Apex of pygofer variable in shape. Styles elongate, variable in shape, apex sometimes cleft. Aedeagus with a median slender shaft and paired lateral sheath like portions, the aedalati, which are variable in length.

Type: Gypona scarlatina Fitch.

Key to Subgenera of Ponana

- 1. Clypeus only slightly swollen or inflated, with a shallow, transverse, depression just below anterior margin of head. Color pale green, yellow to orange, usually with dark markings 2
- 1' Clypeus usually convexly produced, tumid, without a transverse depression below margin of head. Color green without markings (North America) Subgenus Bulbana
- 2 (1) Margin of crown usually with rather fine striae. Clypeus without a median transverse carina between antennal sockets. Aedeagal shaft cleft at apex with caudally projected apical processes only (except in distortia) (North and Central America)..... Subgenus Ponana
- 2' Margin of crown usually with coarse, deep striae. Clypeus with a median transverse carina between antennal sockets. Aedeagal shaft with conspicuous lateral processes arising on terminal portion (except in bola and dulera (South America) Subgenus Neoponana, new subgenus

Ponana, Subgenus Ponana Ball

Crown broadly rounded, longer medially than next the eyes. Clypeus only slightly inflated, without a median transverse carina between the ventral portion of antennal sockets; with a shallow transverse depression just below margin of head. Aedeagus usually cleft at apex forming caudally directed apical processes.

Type of subgenus: Gypona scarlatina Fitch.

The species of this subgenus occur in North and Central America.

Key to Species of Subgenus Ponana (Males)

- 1. Aedeagal shaft asymmetrical (Fig. 138)..... distortia
- 1' Aedeagal shaft normally symmetrical (Fig. 9) 2

Key to Species of Subgenus Ponana

- 2 (1') Pygofer with apex sharp-pointed, ending in a spine-like projection (Fig. 182) tresa
- 2' Pygofer often narrowed and bluntly pointed, but not terminated in a sharp-pointed projection (Fig. 102) 3
- 3 (2') Aedeagal shaft appearing cleft at apex, producing some type of terminal processes (Figs. 36, 93) 6
- 3' Aedeagal shaft not appearing cleft at apex (Figs. 77, 56, 66) 4
- 4 (3') Aedeagal shaft blunt at apex with subapical paired processes extending basally (Figs. 77, 78) notula
- 4' Aedeagal shaft with terminal lateral processes (Figs. 56, 66) 5
- 5 (4') Aedalati not as long as shaft, proximal to shaft and tapered to slender blunt apices (Fig. 56) cincta
- 5' Aedalati abruptly narrowed to sharp-pointed apices, as long as shaft and diverging at apex (Fig. 66) divergens
- 6 (3) Aedeagal shaft with the terminus or apical processes extending to or beyond the apices of the aedalati (Figs. 41, 5) 7
- 6' Aedeagal shaft with the terminus or apical processes not as long as the aedalati (Fig. 59) 45
- 7 (6) Aedeagal shaft not exceeding the aedalati in length (Fig. 65) 8
- 7' Aedeagal shaft longer than the aedalati (Fig. 5) 13
- 8 (7) Aedeagal terminal processes long, separated by a rather deep V-shaped notch (Fig. 65) 9
- 8' Aedeagal terminal processes short, separated by a broad U-shaped notch (Fig. 83) 11
- 9 (8) Aedeagal terminal processes separated by a small lobe at apex of V-shaped notch (Fig. 41) vinula
- 9' Aedeagal terminal processes not separated by lobe at base (Fig. 65) 10
- 10 (9') Aedalati appearing truncate apically, style with a long bent apical portion (Figs. 72, 74) xola
- 10' Aedalati narrowed and tapered to blunt apices, style broad, scarcely curved on apical portion (Fig. 65) floridana
- 11 (8') Plate broad at apex, almost truncate, broadly rounded (Fig. 91) xarela
- 11' Plate narrower at apex (Figs. 86, 128) 12
- 12 (11') Plate elongate, excavated on outer margin just before apex, style scarcely bent at apex (Figs. 86, 85) pamana

Key to Species of Subgenus Ponana

- 12' Plate short, evenly rounded on outer margin, style
narrowed apically and curved outwardly (Figs. 13l, 130) tura
- 13 (7') Aedeagal terminal processes long, slender, with enlarged
discs just before slender apex (Fig. 47) vebera
- 13' Aedeagal terminal processes tapered to apices, without
enlargements (Fig. 14) 14
- 14 (13') Aedeagal terminal processes each divided or bifid (Fig. 9) 15
- 14' Aedeagal terminal processes simple, not bifid (Fig. 14) 17
- 15 (14) Aedeagal terminal processes bifid at apex. Aedalati wide,
broadly rounded at apex (Fig. 5) limbatipennis
- 15' Aedeagal terminal processes bifid near base or at half
their length. Aedalati more slender or bluntly pointed
(Figs. 9, 80) 16
- 16 (15') Aedeagal shaft long, slender with a pointed spur on the
inner margin of each terminal process (Fig. 9) sparsa
- 16' Aedeagal shaft gradually broadened just before apex,
terminal processes broadly separated with the inner
portion of the divided process curved to center line.
Aedalati very slender (Fig. 80) proprior
- 17 (14') Aedeagal shaft slender, straight, with a slight V-shaped
notch (scarcely notched). Style truncate at apex
(Fig. 98) fortina
- 17' Aedeagal shaft with a distinct V- or U-shaped excavation
at apex, although the two divided portions may extend
almost laterally (Figs. 19, 7, 25, 62) 18
- 18 (17') Aedeagal shaft with a small median lobe between apical
processes (Figs. 31, 158) 19
- 18' Aedeagal shaft without a median lobe between apical
processes (Fig. 28) 22
- 19 (18') Aedeagal apical processes long, about one-fifth the
length of shaft. (Figs. 36, 44, 45) 20
- 19' Aedeagal apical processes shorter, not more than one-
seventh the length of shaft (Figs. 31, 158) 21
- 20 (19) Aedeagal shaft with a spur on the dorsal margin at about
four-fifths its length. Aedalati in lateral view very
slender on apical half (Fig. 45) volara
- 20' Aedeagal shaft without a spur on the dorsal margin.
Aedalati in lateral view broad to pointed apex (Fig. 37) velora
- 21 (19') Plate broad, rounded at apex, style with long, curved,
outwardly bent apical portion (Fig. 32) cacozela

Key to Species of Subgenus Ponana

- 21' Plate sloping and bluntly pointed at apex, style with shorter curved apical portion, apex blunt (Figs. 160, 161) tama
- 22 (18') Apical processes short, thick, curved almost laterally (Figs. 16, 19) 23
- 22' Apical processes of various thickness, extending caudally or curved laterally and caudally (Figs. 7, 22, 25, 133) 24
- 23 (22) Aedalati tapered to slender blunt apices. Style with a thick blunt curved apical portion (Figs. 16, 18) scarlatina
- 23' Aedalati thicker at apex. Style with a longer, more slender apical portion (Figs. 19, 21) puncticollis
- 24 (22') Aedeagal apical processes separated by a V-shaped excavation (Figs. 1, 93, 14, 39, 148) 25
- 24' Aedeagal apical processes separated by a broader curved U-shaped excavation (Figs. 7, 28, 25, 33, 153) 32
- 25 (24) Aedeagal apical processes not more than one-tenth the length of shaft (Figs. 1, 7, 93) 26
- 25' Aedeagal apical processes longer, at least one-eighth the length of shaft (Figs. 14, 39, 113, 148) 28
- 26 (25) Plate broad, rounded apically 27
- 26' Plate narrow, elongate, bluntly pointed apically. Style with a short narrow apical portion (Figs. 95, 96) guatama
- 27 (26) Aedeagal apical processes very short, about one-eighteenth the length of shaft. Style with a long, curved apical portion (Figs. 1, 2) aenea
- 27' Aedeagal apical processes longer, about one-tenth the length of shaft. Style with apical portion shorter, narrower, scarcely curved (Figs. 7, 8) pectoralis
- 28 (25') Style with apical curved portion broadened on caudal margin or just before narrowed apex (Figs. 40, 76) 29
- 28' Style with apical curved portion slender, about parallel margined, not enlarged before apex (Figs. 15, 115, 150) 30
- 29 (28) Aedalati thick and blunt at apex (Fig. 39) sonora
- 29' Aedalati tapered to slender pointed apices (Fig. 75) quadralaba
- 30 (28') Plate elongate, less than half as wide as long (Fig. 116) 31
- 30' Plate shorter, more than half as wide as long (Fig. 121) valeda
- 31 (30) Plate broad at apex, almost truncate 53
- 31' Plate bluntly pointed at apex xena

Key to Species of Subgenus Ponana

- 32 (24') Aedeagal apical processes separated by a broad, rather shallow U-shaped excavation (Figs. 28, 103, 123, 133) 33
- 32' Aedeagal apical processes separated by a deeper, rounded excavation (Figs. 7, 22, 25, 50)..... 38
- 33 (32) Plate broad at apex, rather broadly rounded (Fig. 146)..... 34
- 33' Plate more elongate, narrower at base and bluntly pointed. (Figs. 106, 126, 136, 150) 35
- 34 (33) Aedlati in ventral view with blunt apices; in lateral view broad to near pointed apex (Figs. 28, 29)..... candida
- 34' Aedlati in ventral view narrow, tapered on apical half to slender pointed apices; in lateral view with apical half tapered to slender apex (Figs. 143, 144) vandera
- 35 (33') Aedlati in lateral view narrow. Plate excavated on outer margin just before apex (Figs. 124, 126)..... aurata
- 35' Aedlati broader on basal half. Plate not distinctly excavated on outer margin (Figs. 104, 134, 154)..... 36
- 36 (35') Plate broadened at middle, almost half as wide as long, tapered to apex and bluntly pointed (Fig. 106)..... vulana
- 36' Plate narrower, slightly broadened at middle, width not exceeding one-third the length (Figs. 136, 156)..... 37
- 37 (36') Style rapidly narrowed at three-fourths its length, producing a very slender, tapered apical portion. Plate longest at middle. (Figs. 135, 136) xila
- 37' Style with apical portion scarcely narrowed, almost parallel margined to pointed apex. Plate longest next outer margin (Figs. 155, 156)..... yena
- 38 (32') Aedeagal apical processes comparatively short, less than one-twelfth the length of shaft (Figs. 7, 50, 62) 39
- 38' Aedeagal apical processes comparatively longer, more than one-ninth the length of shaft (Figs. 22, 25, 33, 113, 118) 41
- 39 (38) Aedlati slender at apex, curved and contiguous (Figs. 50, 62)..... 40
- 39' Aedlati thick at apex, not curved, separated by the apex of shaft (Fig. 7) pectoralis
- 40 (39) Aedeagal apical processes slender, directed caudally. Style broadened on outer margin just before abruptly narrowed apical portion (Figs. 50, 52) xella
- 40' Aedeagal apical processes thicker, curved laterally then caudally. Style not enlarged on inner margin near apex (Figs. 62, 64) yura

Key to Species of Subgenus Ponana

- 41 (38') Aedeagal apical processes thickened at base, or with short spurs on inner margin at base (Figs. 25, 33) 42
- 41' Aedeagal apical processes not thickened at base (Figs. 22, 113, 118)..... 43
- 42 (41) Aedalati in lateral view broad to near slender apex Fig. 26) aquila
- 42' Aedalati in lateral view narrow, about the same width as shaft to slender apex (Fig. 34)..... punctipennis
- 43 (41') Style with apical portion curved and with a sharp-pointed apex (Fig. 24)..... tena
- 43' Style not sharp-pointed at apex (Figs. 114, 120) 44
- 44 (43') Plate three-fifths as broad as long, outer margin convexly curved (Fig. 121) valeda
- 44' Plate less than half as broad as long, outer margin concavely rounded just before bluntly pointed apex (Fig. 116) xena
- 45 (6') Aedeagal shaft distinctly shorter than aedalati (Figs. 11, 53, 59, 69) 46
- 45' Aedeagal shaft only slightly longer than aedalati (Figs. 3, 198, 163, 168, 173) 49
- 46 (45) Aedeagal shaft about two-thirds as long as aedalati. Aedalati straight, slender, tapered in lateral view (Figs. 59, 60)..... occlusa
- 46' Aedeagal shaft more than nine-tenths as long as aedalati. Aedalati not slender nor tapered to sharp-pointed apices (Figs. 11, 53, 69) 47
- 47 (46') Aedeagal shaft with a deep V-shaped notch separating the divergent terminal processes. Aedalati straight, tapered, blunt at apices. (Fig. 11)..... limonea
- 47' Aedeagal shaft with a U-shaped excavation separating the apical processes. Aedalati curved at apex (Figs. 53, 69)..... 48
- 48 (47') Aedeagal shaft excavation narrow, apical processes extending caudally. Style with curved apical portion short, blunt at apex. (Figs. 53, 55)..... rubrapuncta
- 48' Aedeagal shaft excavation broader, apical processes curving laterally and caudally. Style with apical curved portion longer, tapered to a sharp pointed apex (Figs. 69, 71)..... chiapa
- 49 (45') Aedalati thick at apex, aedeagal shaft with a short V-shaped notch at apex (Fig. 3) rubida

Key to Species of Subgenus Ponana

- 49' Aedalati slender, tapered apically (Figs. 108, 163, 168, 173) 50
- 50 (49') Plate bluntly pointed apically (Figs. 111, 166, 171) 51
- 50' Plate broad, rounded at apex (Fig. 176) tamala
- 51 (49) Style slightly curved apically, blunt at apex (Fig. 108) pana
- 51' Style more strongly curved on apical portion, sharp-pointed at apex (Figs. 165, 170) 52
- 52 (51') Plate concavely excavated on outer margin just before narrow, blunt apex (Fig. 166) yera
- 52' Plate evenly rounded on outer margin, not excavated (Fig. 171) mexella
- 53 (31) Aedeagal apical processes long and slender citrina
- 53' Aedeagal apical processes formed by a V-shaped excavation at apex, processes stout at base, tapered to slender pointed apices vedala

Ponana (Ponana) aenea DeLong
(Figs. 1-2)

Ponana aenea DeLong, 1942, p. 94.

A yellow species marked with brown and flecks of red. Length, 8 mm.

Crown rather strongly produced, apex rounded, more than half as long on middle as basal width between the eyes.

Color: Yellow, tinged with brown. Forewings pale to dark brownish, sometimes with reddish flecks as in scarlatina.

Genitalia: Female seventh sternum with lateral angles produced and rounded, between which the posterior margin is concavely excavated either side of a pair of short, broadly rounded median lobes separated by a short median notch. Male style broad, rather deeply concavely notched on ventral margin at about the middle, angularly notched on dorsal margin a little farther apically, decidedly narrowed and produced forming a thick finger-like process directed outwardly and pointed at apex. Aedeagus viewed ventrally with the aedalati tapered at apices. Shaft slender, bifid at apex with very short apical processes.

The style and aedeagus are both excellent characters for separating this species from scarlatina.

Type: Holotype male from Pennsylvania in the DeLong Collection.

Remarks: In addition to Pennsylvania it is known to occur in Ohio, Maryland, North Carolina, Missouri, Kansas, and Minnesota.

Ponana (Ponana) rubida DeLong
(Figs. 3-4)

Ponana rubida DeLong, 1942, p. 95.

A yellow species washed with brown. Length, 9-9.5 mm.

Crown broadly rounded, a little more than half as long on middle as basal width between the eyes.

Color: Yellowish washed with brown. Forewings brownish with dark brown pigment markings resembling cross veins. These are more abundant on claval area just back of apex of scutellum.

Genitalia: Female seventh sternum roundedly produced, shallowly broadly notched at apex, slightly sinuate about halfway on either side. Male style even broader than in aenea, not so deeply notched on either ventral or dorsal edges, and with apex shorter, thicker, and more blunt at apex than in that species. Aedeagus with the shaft narrow, constricted on dorsal side, then bifurcate and broadened. The ventral portion forms a sheath which is not constricted.

Type: Holotype male from Wisconsin in the DeLong Collection.

Remarks: It is known to occur in Wisconsin, Nebraska, Iowa, Ohio, and Pennsylvania.

Ponana (Ponana) limbatipennis (Spang.)
(Figs. 5-6)

Gypona limbatipennis Spangberg, 1878, p. 47.

A dark-winged species with pale costal margins. Length, 8.75-9.5 mm.

Crown broadly rounded, more than half as long as basal width between eyes.

Color: Brownish yellow. Crown and pronotum usually unmarked. Scutellum smoky. Forewings usually smoky to black, apical half often paler with dark veins, costal margin broadly yellowish.

Genitalia: Female seventh sternum with posterior margin slightly sinuate, and broadly, shallowly notched at middle. Male style slender, rather shallowly notched on ventral and dorsal margins, abruptly narrowed just before apex, the apical tip rather slender; finger-like apex curved to a point on inner margin. Aedeagus with the aedalati narrowed just before apex with apices blunt, divergent. Shaft slender, slightly enlarged at apex, median portion excavated with a slight median tooth at base. Each arm forming the excavation is bifid at apex, the outer tooth shorter than the inner tooth. The aedeagus character will easily separate this from all allied species.

Type: Holotype male from Illinois in the Stockholm Museum.

Remarks: In addition to Illinois, it is known to occur in Ohio and Iowa. The type has been examined.

Ponana (Ponana) pectoralis (Spang.)
(Figs. 7-8)

Gypona pectoralis Spangberg, 1878, p. 46.

Gypona albimarginata Woodworth, 1887, p. 31.

Gypona bimaculata Woodworth, 1887, p. 31.

Gypona woodworthi Van Duzee, 1915, p. 389.

A yellowish brown species with dark coloration on the corium and clavus of forewings. Length, 10 mm.

Crown broadly produced, more than one-half as long on middle as basal width between the eyes.

Color: Yellow washed with brown. Disc of pronotum darker. Scutellum darker on anterior half. Forewings yellowish; subhyaline claval area more smoky and with brownish spots on corium and clavus.

Genitalia: Female seventh sternum with posterior margin broadly, rather shallowly notched at middle with a rounded lobe either side which is usually slightly sinuate at middle. Male style broad, deeply concavely notched on inner margin, then enlarged and sloped to a rather thick finger-like apex which is formed by a deep angular notch on inner margin. Aedeagus with apices of aedalati blunt and divergent; shaft slender, enlarged at apex, rather deeply notched forming a pair of divergent pointed tips.

Type: Holotype female from Illinois in the Stockholm Museum.

Remarks: The species is known to occur in Ohio, Illinois, Kansas, Mississippi, Texas, and the District of Columbia.

Ponana (Ponana) sparsa DeLong
(Figs. 9-10)

Ponana sparsa DeLong, 1942, p. 103.

A greenish yellow species with a few dark markings. Length, 7.5-8.5 mm.

Crown broadly rounded, twice as wide between eyes at base as median length.

Color: Yellowish green, with indication of the transverse rows of black spots on forewings.

Genitalia: Female seventh sternum with a broad shallow notch at center and a shallow concave excavation about halfway either side, giving the posterior margin a lobate appearance. Male style sinuate on both margins, broadened just before the produced, narrowed, apical portion which is long, gently curved

dorsally, and sharp-pointed at apex. Aedeagus with the aedalati broadened just before blunt, narrowed apices. Shaft slender, widened at apex, and deeply excavated with a V-shaped notch which forms a pair of long, slender divergent processes each of which bears a sharp-pointed spur on inner margin at about half its length.

Type: Holotype male from Florida in the DeLong Collection.

Remarks: It is known to occur only in Florida.

Ponana (Ponana) limonea Ball and Reeves
(Figs. 11-13)

Ponana scarlatina var. limonea Ball and Reeves, 1937, p. 489.

A smoky greenish species with a well-produced crown. Length, 10 mm.

Crown strongly, bluntly produced, more than half as long on middle as basal width between eyes at base.

Color: Smoky green; crown and pronotum often brighter green.

Genitalia: Female seventh sternum almost truncate, with a broad, shallow median notch at middle. Male style rather broad with a produced, rounded lobe on dorsal margin not far from apex from which the margin is concavely rounded to form a narrow, produced apical process which is pointed at tip. Aedeagus with aedalati tapered to bluntly pointed apices. Shaft long, slender, enlarged at apex, with a pair of long, slender, tapered, pointed processes separated by a deep V-shaped excavation.

Type: Holotype male from Ohio in the Ball Collection, U. S. National Museum.

Remarks: Known to occur only in Florida and Ohio.

Ponana (Ponana) citrina (Spang.)
(Figs. 14-15)

Gypona citrina Spangberg, 1878, p. 45.

A yellowish species tinged with orange and often with black spots on crown. Length, 8-9.75 mm.

Crown broadly rounded, more than twice as wide as median length.

Color: Green to yellow, often tinged with orange with small black spots usually arranged in three transverse rows extending across forewings.

Genitalia: Female seventh sternum almost truncate, faintly notched at middle and slightly sinuate either side, causing a faint lobate appearance. Male style rather broad with a shallow, broadly rounded excavation on ventral

or inner margin, a little beyond middle; also notched on dorsal margin beyond which it is widened by a rounded lobe to the slender, produced, narrow process at apex which has a sharp-pointed tip. Aedeagus with the aedalati tapered to convergent, bluntly pointed apices. Shaft slender, broadened at apex, deeply excavated by a V-shaped notch, thus producing a pair of divergent, pointed, slender processes at tip.

Type: Holotype male from Texas in the Stockholm Museum.

Remarks: This species is reported only for Texas.

Ponana (Ponana) scarlatina (Fitch)
(Figs. 16-18)

Gypona scarlatina Fitch, 1851, p. 57.

Gypona irrorella Spangberg, 1878, p. 63.

Gypona spadix DeLong, 1918, p. 235.

Gypona rodora Ball, 1920, p. 96.

A yellowish brown species completely dotted with bright red spots in well-marked specimens. Length of male 8.5 mm, female 9 mm.

Head narrow, crown broadly rounded, almost twice as wide between eyes at base as median length.

Color: Varying from buff to brown, and usually marked with red spots on all portions of the dorsal surface. Veins frequently red. The degree and intensity of coloration are quite variable.

Genitalia: Female seventh sternum with well-produced, rounded lateral angles between which the posterior margin is concavely excavated either side of a broad median produced lobe which is slightly notched at middle. Male style with apical portion narrowed but almost parallel margined to apex which is rather broad and rounded and with a short point on inner apex. Aedeagus in ventral view with a rather broad shaft which is tapered at apex and bears a pair of short processes which extend laterally and are tapered to pointed apices. The aedalati are tapered to slender apices.

The male styles and aedeagus will easily separate this species which is variable in color.

Type: Holotype female from New York in the New York State Museum.

Remarks: Known to occur in New York, New Jersey, Ohio, Illinois, Wisconsin, Ontario, Kentucky, Tennessee, Texas, and Arizona.

Ponana (Ponana) puncticollis (Spang.)
(Figs. 19-21)

Gypona puncticollis Spangberg, 1878, p. 63.

Gypona sanguinolenta Spangberg, 1878, p. 63.

Gypona grisea Spangberg, 1878, p. 63.

Gypona proscripta Fowler, 1903, p. 309.

A pale brownish species with four large round spots just behind anterior margin of pronotum and with forewings heavily marked with brownish irroration. Length, 9 mm.

Crown rather strongly produced and rounded, more than half as long on middle as basal width between the eyes.

Color: Pale brownish, pronotum with four round spots on submargin; crown and pronotum often with fine brown punctures which appear reddish in some specimens. Forewings generally marked with small round brownish spots. In addition there are heavy brownish areas arranged in two broken transverse bands across clavus. The intensity of these bands will vary.

Genitalia: Female seventh sternum with produced, rounded lateral angles between which the posterior margin is concavely excavated either side of a broad median lobe produced beyond the lateral angles and slightly notched at middle. Male style broad, narrowed toward apex, and constricted near apex to form a thick, finger-like, curved tip which is bluntly pointed. Aedeagus in ventral view with the aedala blunt at apex and rounded. The shaft long and slender with broadened apex from which arise two lateral processes which are rigidly fastened together and form a semicircular band, with the apices curved ventrally and sharp pointed.

Type: Holotype female from Texas in the Stockholm Museum.

Remarks: Known to occur in Texas, Florida, and Illinois.

Ponana (Ponana) tena, n. sp.
(Figs. 22-24)

Resembling vedala in form and appearance but paler in color and with different genitalia. Length of male 9 mm, female 9.5 mm.

Crown with broadly rounded margin, twice as wide between eyes at base as median length.

Color: Crown pale yellow unmarked. Pronotum pale yellow with scattered, minute, brown, punctate spots on disc and posterior portion. Four round black spots across anterior margin, one behind outer margin of each eye and one behind each ocellus. Scutellum yellow to pale brown, basal angles a little darker. Forewings yellowish, subhyaline with a few scattered pale brown markings. A brown spot on commissure at end of each claval vein.

Genitalia: Female seventh sternum with lateral angles broadly rounded, between which the posterior margin is broadly, shallowly excavated either

side of a broadly, convexly rounded, median lobe which is more than half the width of segment and is produced beyond the length of the lateral angles. Male plates broad, more than twice as long as broad, almost parallel margined, apex broadly rounded. Style broadened, then gradually narrowed at two-thirds its length; apical third narrow, curved, with a sharp-pointed apex. Aedeagus with the aedalati quite broad at middle, tapered to narrow apices. Shaft narrow, with two long, stout apical processes which curve laterally and extend apically. Pygofer with a narrow curved apex.

Holotype male: Mexcala, Gro., Mexico, X-22-41, K-247, DeLong, Good, Caldwell, and Plummer. Allotype: Acatlan del Rio, Guerrero, VIII-10-1930, at light, Jose Parra. Paratypes: 15 males, Iguala, Gro., Mexico, IX-11-39, DeLong; 1 male, Zimapan, Hgo, Mexico, IX-26-41, DeLong, Good, Caldwell, and Plummer; 1 male, Mexcala, Gro., Mexico, 10-2-45, Balock, DeLong, and Hershberger; 1 male, Iguala, Gro., Mexico, XI-15-46, E. C. Van Dyke; 6 males, Acatlan del Rio, Gro., Mexico, Balsas River, VIII-1930, Jose Parra; 1 male, Santo Tomas, Gro., Mexico, VIII-1930, Jose Parra. Holotype, allotype, and paratypes in the DeLong Collection. Paratypes in the U. S. National Museum, the California Academy of Science Collection, the Stockholm Museum, and the North Carolina State University Collection.

Ponana (Ponana) aquila (Gibson)
(Figs. 25-27)

Gypona aquila Gibson, 1919, p. 99.

A pale yellowish species heavily marked with brown. Length, 8-8.5 mm. Crown short, narrow, broadly rounded, more than twice as wide between eyes as median length.

Color: Pale yellow; a round black spot behind each ocellus on base of crown, one behind each on anterior margin of pronotum, and a spot behind each eye on anterior portion of pronotum, brown. Disc and posterior half of pronotum densely punctured with brown. Basal angles of scutellum brown. Forewing marked by numerous small brownish irregular spots which are more concentrated on clavus.

Genitalia: Female seventh sternum with posterior margin concavely rounded between lateral margins to a broad, produced median lobe, more than one-third the width of the segment, which is slightly notched at middle forming a pair of proximal rounded lobes which are produced decidedly beyond the lateral angles. Male style broad at base, rapidly narrowed, and abruptly bent outwardly on apical third with an anteriorly bent and pointed tip. Aedeagus with aedalati broadened at middle and tapered to blunt apices. Shaft broadened to form a pair of heavy apical processes which taper to pointed divergent tips.

Type: Holotype female from Arizona, in the U. S. National Museum.

Remarks: It has been reported only for Arizona.

Ponana (Ponana) candida (Van Duzee)
(Figs. 28-30)

Gypona candida Van Duzee, 1923, p. 175.

A pale species marked with brown spots and ramose pigment lines on forewings. Length, 7 mm.

Crown bluntly produced, about twice as wide between eyes at middle as median length.

Color: Pale yellow; a black spot behind each ocellus on basal margin of crown. Pronotum with small brown punctures on disc and two spots behind each eye on a median transverse line. Forewings cream-white with veins and ramose pigment markings pale brown.

Genitalia: Male style narrowed beyond middle and produced, curved outwardly and with a pointed apex on anterior margin. Aedeagus with aedalati curved inwardly and narrowed to bluntly pointed apices. Shaft widened at apex bearing a short slender process on each outer margin. In lateral view the aedalati are broad, curved, and narrowed to pointed apices. Plate short and broad.

Type: Holotype male from Mexico (Lower California) in the California Academy of Science Collection.

Remarks: This species is recorded only for Lower California.

Ponana (Ponana) cacozela (Gibson)
(Figs. 31-32)

Gypona cacozela Gibson, 1919, p. 94.

A yellowish species with transverse rows of dark spots. Length, 7-8.5 mm. Crown broad, about twice as wide between eyes at base as median length.

Color: Yellow tinged with orange, brown spots on forewings usually arranged in three transverse rows.

Genitalia: Female seventh sternum with posterior margin almost truncate either side of a short median notch. Male style rather slender with a broadly rounded, produced lobe on ventral or inner margin beyond middle. Apical fourth narrowed, sharply curved dorsally or outwardly, sickle-shaped with apex pointed. Aedeagus with aedalati bluntly pointed. Shaft slender, enlarged at apex, and deeply notched with a short, broad tooth at apex of notch, sunken between a pair of long, slender, pointed apical processes.

Type: Holotype female from Texas, in the U. S. National Museum.

Ponana (Ponana) punctipennis (Stal)
(Figs. 33-35)

Gypona punctipennis Stal, 1864, p. 82.

Gypona curiata Gibson, 1919, p. 97.

A pale brown species heavily marked with small brownish punctures.
Length, 8-8.5 mm.

Crown bluntly produced, more than half as long on middle as basal width between eyes.

Color: Pale brown; a spot behind each ocellus on anterior portion of pronotum brown and fine punctures on disc and posterior portion of pronotum, brown. Forewings with veins margined with small punctures and numerous spots on apical third, brown.

Genitalia: Female seventh sternum almost truncate on posterior margin, slightly angularly excavated to a broad, slight median notch. Male style rather narrow, apical fourth strongly curved outwardly and pointed on anterior margin. Aedeagus rather short; aedalati tapered at apices, convergent, and with narrowed blunt tips. Shaft with a pair of heavy, elongate, divergent, claw-like processes arising at apex which are separated at the point of origin by a broad concave notch.

Type: Holotype female from Mexico in the Stockholm Museum.

Remarks: It has been collected also in Arizona.

Ponana (Ponana) velora, n. sp.
(Figs. 36-38)

Resembling tama in form and appearance but darker in color and with different male genital structures. Length of male 8.5 mm.

Crown broadly rounded, more than half as long at middle as basal width between eyes.

Color: Crown dull yellow. Pronotum yellow with several scattered minute dark brown punctate spots on disc and posterior half. A series of four definite dark spots across anterior portion. Two are a little larger, one posterior to each ocellus. A smaller round spot is behind each eye. An irregular brown spot is on lateral margin close to each eye and a few irregular paler markings are along anterior margin. Scutellum pale yellow, a spot in each basal angle dark brown. Forewings pale brown, heavily marked with numerous brown spots and blotches. Veins on anterior two-thirds margined with minute brown punctate spots.

Genitalia: Male plates widest at about two-thirds their length, then concavely narrowed on outer margin to form a narrower but rather broadly rounded apex. Style in lateral view with a slender tapered and outwardly curved apical fifth, apex blunt, spoon-like. Aedeagus with the aedalati distinctly widened at

middle and tapered at both ends, apical portions sharp-pointed. Shaft slender with a prominent terminal process arising on each side at apex curving outwardly, then apically and extending well beyond the tip of the aedalati. Pygofer in lateral view tapered to a bluntly pointed apex.

Holotype male: Mexico 2499, Collection, C. F. Baker. Paratype: 1 male, Cuernavaca, Morelos, Mexico, VIII-30-1944 on foliage Eupatorium adenophorum, N. L. H. Krauss, P. 283. This is apparently the same as the holotype. Holotype and paratype in the U. S. National Museum.

Ponana (Ponana) sonora Ball
(Figs. 39-40)

Ponana sonora Ball, 1935, p. 502.

A pale yellow species with produced crown and four large black spots on anterior margin of pronotum. Length, 8 mm.

Crown almost angularly produced, apex rounded, more than one-half as long at middle as basal width between the eyes. Pronotum decidedly wider than head.

Color: Pale yellow, with a row of four round black spots on the anterior portion of pronotum. Forewings pale, scarcely marked, with a small black spot on each at base.

Genitalia: Female last ventral segment feebly bisinuate. Male style suddenly narrowed near apex and curved outwardly to form a short produced tip. Broadened on caudal margin of curved portion, apex blunt and narrowed. Aedeagus rather short and broad; aedalati broad, tips broad, convergent, pointed on inner margins. Shaft broadened at apex to form a pair of long, slender, divergent pointed processes which are separated by a deep, V-shaped notch.

Type: Holotype female from Arizona, in the Ball Collection, U. S. National Museum.

Remarks: This species is known only from Arizona.

Ponana (Ponana) vinula (Stal)
(Figs. 41-43)

Gypona vinula Stal, 1864, p. 81.

A small yellowish species with a pair of black spots on the anterior portion of crown at base, sutural portion of clavus pink to pale reddish. Length, 7.5 mm.

Crown broadly rounded, more than twice as wide between eyes at base as median length.

Color: Dull yellow; a black spot behind each ocellus on anterior portion of pronotum. Anterior portion of scutellum brown. Crown with a large brown

spot on disc. Sutural border of clavus at apex of scutellum pink to pale reddish with brown mottling.

Genitalia: Female seventh sternum sinuate either side of a median, narrow incision. Male style with apical fifth narrowed and sharply bent outwardly, apex bluntly pointed. Aedeagus with aedalati blunt, convergent. Shaft slender, broadened near apex producing a pair of long, slender, divergent processes with a short sunken tooth between them at base. In lateral view the aedalati are decidedly broadened at middle, curved dorsally, and pointed at apices.

Type: Holotype male from Mexico in the Stockholm Museum.

Remarks: This species is known only from Mexico.

Ponana (Ponana) volara, n. sp.
(Figs. 44-46)

Resembling yena in general form and appearance but with different male genital structures. Length of male 7.5 mm.

Crown broadly rounded, about two-thirds as long at middle as basal width between eyes.

Color: Crown pale, dull yellow, with a small round spot at base behind each ocellus. Pronotum same tint of yellow with disc and posterior half rather thickly set with minute brown punctate spots. Anterior portion with six black spots. Two are behind each eye, the smaller of these is along the lateral margin; two are anterior, median, one just behind each basal spot on crown. Scutellum dull yellow, basal portion darker. Forewings appearing brownish yellow with rows of minute brown punctate spots margining or parallel to the veins, extending to apex of clavus. Apical veins and cross veins brown. Several small brown spots on wings; two between sectors, a row of six or more just anterior to claval vein, three or more on clavus along commissure.

Genitalia: Male plates elongate, almost three times as long as broad; widest at two-thirds its length, then sloping to a bluntly pointed apex. Style tapered from middle to form a narrow curved apical eighth which is bluntly pointed. Aedeagus with the aedalati broad at middle tapering to slender, curved apices. Shaft broadened near apex with a pair of long, slender, terminal processes which are separated at base and slightly divergent. Pygofer with a narrow blunt apex.

Holotype male: Vergel Chis, Mexico, V-19-35, A. Dampf. Paratypes: 1 male, Limpia Creek Canyon, Texas, IX-1952, at light, Davis Mts., B. Malkin; 4 males, Vergel Chis, 1 each, VI-3-35, VI-5-35, VI-25-35, and Finca, Aurora, VI-18-35, all collected by A. Dampf; 1 male, Zoyaltepec, Oaxaca, Mexico, VII-6-1932, D. Quiroz; 1 male, Cordoba Ver., Mexico, Sept., 1930; 1 male, Tierra Blanca Ver., IX-17-1924. Holotype and paratypes in the DeLong Collection, paratype in the California Academy of Science Collection, the U. S. National Museum, and the Stockholm Museum.

Ponana (Ponana) vebera, n. sp.
(Figs. 47-49)

Resembling xila in form and appearance but with different male genital structures. Length of male 7.5 mm, female 8 mm.

Crown broadly rounded, more than half as long on middle as basal width between the eyes.

Color: Crown pale brownish yellow. Pronotum same as crown with the four round black spots across anterior portion; a spot near lateral margin just behind each eye and a spot near anterior margin directly behind each ocellus. Scutellum pale brownish yellow, basal angles a little darker. Forewing same tint as scutellum with two spots on discal area, each side and three or more spots along commissure of clavus. Cross veins of apical cells brown.

Genitalia: Female seventh sternum with rounded lateral angles between which the posterior margin is shallowly excavated either side of a pair of slightly produced median lobes which are about the same length as the lateral angles separated by a short, broad, V-shaped notch and combined, are more than half the width of the segment. Male plates elongate, more than three times as long as broad, apex bluntly pointed. Style narrowed at three-fourths its length to form a narrow curved apical portion with a tooth-like spine at apex. Aedeagus with aedala broadened at middle and tapered to pointed apices which curve inwardly. Shaft with two long thread-like apical processes which are widely separated and diverge rapidly. Pygofer with narrow blunt apex.

Holotype male: Carmen Camp, Mexico, 1-27-39, A. Dampf. Allotype female: Same data as holotype. Paratypes: 1 male, Same as holotype; 1 male, Morales, Guatemala, October, 1930, J. J. White; 4 males, Vergel Chis., Mexico, one each, V-21-35, Mrs. Dampf; V-20-35, A. Dampf; V-30-35, A. Dampf, and VI-4-35, A. Dampf. Holotype, allotype, and paratypes in the DeLong Collection. Paratype in the North Carolina State University Collection, the U. S. National Museum, and the Stockholm Museum.

Ponana (Ponana) xella, n. sp.
(Figs. 50-52)

Resembling volara in form and appearance but with different male genital structures. Length of male 8.5 mm.

Crown broadly rounded, almost twice as wide between eyes at base as median length.

Color: Crown golden yellow. Pronotum dull yellow with numerous minute brown punctate spots on disc and posterior half. A row of four brown spots across anterior portion; a spot behind each eye and a spot near anterior margin behind each ocellus. Scutellum brownish yellow with basal angles darker and a large pale yellow spot at apex. Forewings appearing pale brown with darker spots on claval margin along apical portion of scutellum and paler spots posteriorly on clavus; a larger spot on disc; smaller spots on apical portion of wings; apical cross veins, brown.

Genitalia: Male plates more than twice as long as broad, apex broad, truncate. Style rapidly narrowed at four-fifths its length, apical fifth narrow, curved outwardly, sharp-pointed. Aedeagus with aedala broadened at middle, apices narrow, curved inwardly. Shaft with two short, slender, separated apical processes. Pygofer constricted just before apex which is narrow and bluntly pointed.

Holotype male: Santa Anita Chis., Mexico, at light, II-25-1931, Jose Parra collector, in the DeLong Collection.

Ponana (Ponana) rubrapuncta DeLong
(Figs. 53-55)

Ponana rubrapuncta DeLong, 1942, p. 99.

A yellow species marked with small red spots. Length, 7.5-8 mm.

Crown broadly, roundedly produced, more than one-half longer on middle than basal width between eyes.

Color: Yellowish; crown and pronotum rather densely covered with small red spots. Forewings ringed with brown with the three transverse rows of black spots as in citrina, rather evenly covered with small reddish blotches.

Genitalia: Female seventh sternum rather well-produced; posterior margin broadly, sinuately, and shallowly excavated with a broad shallow notch at middle. Male style bearing a rounded, produced lobe on ventral or inner margin not far from apex and a smaller rounded, produced lobe on the dorsal or outer margin. Apical portion narrowed, curved dorsally, forming a finger-like process with a sharply pointed apex. Aedeagus with the aedala narrowed near apex and produced as slender, bluntly tipped apices. Shaft with a deep, narrow, U-shaped excavation at apex formed by a long, slender, sharply pointed process on each side. The genitalia will easily separate this species from those closely related in the citrina group.

Type: Holotype male from Florida in the DeLong Collection.

Remarks: Known to occur only in Florida.

Ponana (Ponana) cincta, n. sp.
(Figs. 56-58)

A well marked species resembling quadralaba in general form but with darker markings and with different male genitalia. Length of male 8 mm.

Crown produced but scarcely angled, three-fifths as long at middle as basal width between the eyes.

Color: Yellow marked with orange and brown. Crown and pronotum orange, ocelli and four round spots on pronotum black. A spot on lateral margin of pronotum at half its length behind each eye, a pair on anterior

margin, and one behind each ocellus. Scutellum orange marked with brown and with black spots on anterior portion. Forewings yellow tinted with orange on anterior half. A dark brownish band extending from base of wing along scutellum, then along commissure to apex of wing, gradually widened to form a cross band at middle, which extends to costa where it is quite narrow, with darker brown spots on discal cross veins.

Genitalia: Male plates rather broad, rather strongly curved on inner margin to form a bluntly pointed apex at outer margin. Style in ventral view appearing slender and only slightly, broadly excavated on inner margin. Apical third narrow, curved outwardly, and tapered to a pointed apex. Aedeagus with the aedali short, tapered from near base and with narrow blunt apices. Shaft narrowed just before apex and bearing a pair of terminal spine-like processes which extend laterally and caudally.

Holotype male: Iguala, Gro., Mexico, 9-11-39, D. M. DeLong collector. Paratypes: 2 males, Same as holotype; 2 males, Iguala, Gro., Mexico, X-25-41, DeLong, Good, Caldwell, and Plummer. Holotype and paratypes in the DeLong Collection, the U. S. National Museum, and the Stockholm Museum.

Ponana (Ponana) occlusa (Gibson)
(Figs. 59-61)

Gypona occlusa Gibson, 1919, p. 94.

A small, lemon-yellow species with a pair of black spots on anterior portion of pronotum. Length, 6-6.5 mm.

Crown short, broadly rounded, twice as wide between eyes at base as median length.

Color: Lemon-yellow to pale green with a small black spot behind each ocellus on anterior portion of pronotum.

Genitalia: Female seventh sternum with produced, rounded lateral angles between which the posterior margin is narrowly roundedly excavated either side of a broad median lobe produced to about the length of the lateral angles. Male style with a definitely sickle-shaped portion which is narrowed and is curved outwardly. Aedeagus with the aedali tapered to pointed apices. Shaft short, greatly exceeded by the lateral pieces and notched at apex, forming a pair of separated terminal teeth.

Type: Holotype female from Texas, in the U. S. National Museum.

Remarks: In addition to the type, it is known to occur in Texas and Mexico.

Ponana (Ponana) yura, n. sp.
(Figs. 62-64)

Resembling fortina in form and general appearance but with different male genital structures. Length of male 7 mm, female 8 mm.

Crown broadly rounded anteriorly, twice as wide between the eyes at base as median length.

Color: Yellow with a few dark markings. Crown yellow unmarked. Pronotum yellow with four black spots, one on lateral margin just behind each eye and a pair along anterior margin, one behind each ocellus. Forewings yellow, central and apical costal area hyaline. Faint color markings, both light and dark, along commissure of basal two-thirds of clavus.

Genitalia: Female seventh sternum with lateral angles strongly produced and broadly curved to posterior margin which is broadly shallowly excavated each side of a median produced lobe; lobe is shallowly broadly notched at apex. The lobe is about one-third the width of segment and not produced to length of lateral angles. Male plates rather broad, widest at middle, convexly curved on outer margin, apices broad, almost truncate. Style broadly excavated at about middle on inner margin, apical fourth bent outwardly, and tapered to a pointed apex. Aedeagus with aedali elongate rather slender, tapered to pointed apices which curve inwardly. The shaft is slender, elongate, and abruptly broadened at apex to form a broad truncate tip which is at least five times the width of shaft.

Holotype male: Vergel, Chiapas, Mexico, 1938. Allotype female: Same data as holotype. Paratypes: 3 females and 6 males, Same as holotype; 1 male, Vergel, Chiapis, V-19-35. Holotype and paratypes in the DeLong Collection. Paratype in the U. S. National Museum Collection, the Stockholm Museum, the North Carolina State University Collection, and the California Academy of Science Collection.

Ponana (Ponana) floridana DeLong
(Fig. 65)

Ponana floridana DeLong, 1942, p. 102.

A yellow species with black spots on the pronotum. Length of male 7 mm, female 8 mm.

Crown broadly rounded, a little more than twice as wide between eyes at base as median length.

Color: Straw yellow; ocelli large, dark; pronotum with four black spots in a semicircle on submargin. Forewings with traces of the three rows of spots as seen in citrina.

Genitalia: Female seventh sternum almost truncate, slightly bisinuate with a slight notch at middle. Male style narrow, broadly, shallowly excavated on ventral or inner margin, scarcely narrowed to apex which is rapidly

narrowed to a blunt, rounded apex. Aedeagus with aedalati narrowed at apex and blunt. Shaft rather rapidly enlarged and deeply excavated by a V-shaped notch forming on either side a long, strongly tapered pointed process.

Type: Holotype male from Florida, in the DeLong Collection.

Remarks: Known to occur in Florida and Texas.

Ponana (Ponana) divergens, n. sp.
(Figs. 66-68)

Resembling pectoralis in color markings and general appearance but with different male genital structures. Length of male 7.5 mm.

Crown produced and broadly rounded, almost twice as wide between eyes at base as median length.

Color: Yellow tinged with green and with darker markings. Crown yellow unmarked. Pronotum yellowish with four small round black spots on anterior portion; one is posterior to each eye but not on lateral margin; two are close to anterior margin, one behind each ocellus. The disc is peppered with minute brown flecks. Pronotum pale brown. The basal angles are darker and the apical angle is paler in color. Forewings yellowish. The claval area next the scutellum and extending back along commissure almost to middle of clavus, pale brown with darker brown spots. A cross row of spots at middle of clavus with a large brown spot on disc. A small brown spot on the anterior cross vein between the sectors.

Genitalia: Male plates elongate, narrowed at middle, slightly wider at two-thirds their length then gradually tapered to rather narrow, blunt apices. Style appearing almost parallel margined for about two-thirds its length, then slightly narrower with the apical sixth more narrowed and bent obliquely outwardly and abruptly narrowed to a pointed apex. Aedeagus with the aedalati diverging near their middle, narrowing at three-fourths their length to slender sharp-pointed apices which curve outwardly then caudally. The shaft is narrow and bears a pair of short spine-like processes at the apex which extend outwardly from the tip.

Holotype male: Chiapis, Mexico, Alfonse Dampf collector, in the DeLong Collection.

Ponana (Ponana) chiapa, n. sp.
(Figs. 123-127)

Resembling divergens in form and general appearance with more intense color markings and with different male genital structures. Length of male 7.5 mm, female 8 mm.

Crown broadly, roundly produced, more than twice as wide between eyes at base as median length.

Color: Crown yellow unmarked, pronotum yellow with two round black spots near anterior margin, one behind each ocellus. Scutellum with basal angles brown, apical angle white. Forewings yellow tinged with green with a broad dark brown stripe extending from scutellum along inner margin of wings when closed to and covering all but first apical cell. The stripe begins along the sides of scutellum, is gradually widened to disc of wing at about middle of clavus and continued broad to apex of wing.

Genitalia: Female seventh sternum with lateral angles rounded to posterior margin which is slightly and broadly concavely excavated each side of a produced median lobe which is about one-fourth the width of the segment, slightly notched at middle and produced beyond the lateral angles. Male plates as long as aedeagus. Styles concavely narrowed on outer margin, then bent outwardly at a right angle to form a long narrow apical portion which is sharp-pointed at apex. Aedeagus with the aedala rather constricted at three-fourths their length and tapered to slender apices. The shaft is long and slender, slightly widened at apex with a spine-like process on each outer margin, directed caudally.

Holotype male: Chiapis, Mexico, 1938, Alfonse Dampf. Allotype: Vergal Chiapis, Mexico, 6-3-35. Paratypes: 4 males, same as holotype, Dampf; 2 females, Coatepec, Vero, Mexico, K-342, 10-14-45, Shaw, DeLong; 1 male, Costa Rica; 1 male, Cerro Punta, Panama, 12-23-39, J. G. Sanders; 1 male, San Salvador, 3-16-53. Holotype, allotype, and paratypes in the DeLong Collection. Paratypes in the U. S. National Museum, the North Carolina State University Collection, the Stockholm Museum, and the California Academy of Science Collection.

Ponana (Ponana) xola, n. sp.
(Figs. 72-74)

Resembling vandera in form and appearance but darker in color and with different male genital structures. Length of male 9 mm, female 9.5 mm.

Crown broadly rounded, more than half as long at middle as basal width between eyes.

Color: Somewhat variable; crown pale brown; pronotum pale brown, disc usually paler with numerous brown punctate spots. Usually with a dark spot on lateral margin and a small round spot proximal to it behind eye on each side, with paler brown markings along anterior margin. Scutellum yellow to pale brown, basal angles and in some specimens entire base, brown. Forewings pale brown with claval area along commissure marked with dark brown spots except a white spot on middle of clavus. A few brown spots on other portions of wing; veins on apical half margined with brown. Costal areas may be tinted with red.

Genitalia: Female seventh sternum with lateral angles slightly produced and rounded between which the posterior margin is slightly broadly excavated either side of a produced, broadly rounded median lobe which is notched at middle by a short, broad, V-shaped notch. Male plates rather narrow, elongate, widest at about two-thirds their length, concavely narrowed on outer

margin to form a blunt, rounded apex. Style rather narrow in lateral view, bent outwardly near apex forming a short tip which is pointed and curved downward at apex. Aedeagus with the aedala in ventral view, blunt at apex. In lateral view they appear tapered with long, slender apices. The shaft forming two terminal apical processes which are separated by a V-shaped notch, the apical half slender and extending to apex of the aedala.

Holotype male: Chiapis, Mexico, June, 1938, A. Dampf. Allotype female: Same as holotype. Paratypes: 1 female, Same as holotype: 1 male, Mexico City, 11-11-38, A. Dampf; 1 female, Carinan Camp, Mexico, I-27-39, A. Dampf. Holotype, allotype, and paratypes in the DeLong Collection.

Ponana (Ponana) quadralaba DeLong
(Figs. 75-76)

Ponana quadralaba DeLong, 1942, p. 98.

A small yellowish species with four black spots on anterior portion of pronotum. Length, 7-8.5 mm.

Crown broadly rounded, more than one-half as long at middle as basal width between the eyes.

Color: Yellow; pronotum with four black spots in a circle just back of margin. Forewings brownish with a few brown blotches on clavus, apex of clavus, and one on corium.

Genitalia: Female seventh sternum concavely rounded from lateral angles to a slightly produced median third which is broadly shallowly notched at middle forming a pair of proximal rounded lobes. Male style rather narrow, sides scarcely sinuate to near apex where it is concavely excavated on inner margin with apex strongly curved dorsally and produced into a finger-like process, usually with a slightly enlarged blunt tooth on outer margin of curved portion at base of the finger-like process. Aedeagus with the aedala enlarged at middle, tapered to blunt apices. The shaft long, rather slender, decidedly broadened at apex, appearing deeply angularly excavated forming two long divergent, slender, pointed processes between which is a membranous wall extending to one-fourth the distance from the pointed apices.

Type: Holotype male from Tennessee in the DeLong Collection.

Remarks: In addition to Tennessee, this species is known to occur in Nebraska, Arizona, Texas, Wisconsin, Ohio, Kentucky, New Jersey, and Ontario, Canada.

Ponana (Ponana) notula (Fowler)
(Figs. 77-79)

Gypona notula Fowler, 1903, p. 313.

Closely related to heiroglyphica but smaller. Length, 6 mm.

Color: Brownish; pronotum with four to eight black spots on the anterior portion. Forewings with irregular brown markings.

Genitalia: Female seventh sternum sinuate. Male style curved and narrowed to form a long, pointed apex. Aedeagus with the shaft bearing a pair of slender apical processes which extend basad and cephalad and which are sharply pointed. The male character seems to separate this as a distinct species and nothing which has been examined in the United States agrees with this Mexican species.

Type: Holotype male from Mexico in the British Museum of Natural History.

Remarks: It is known to occur only in Mexico.

Ponana (Ponana) proprior (Fowler)
(Figs. 80-82)

Gypona proprior Fowler, 1903, p. 311.

Gypona tergata Fowler, 1903, p. 312.

Form and color of vinula but distinguished by the male and female genital structures. Length, 8-8.5 mm.

Crown produced and rounded, margin of crown thick.

Color: Yellow to green. Pronotum with a row of small black spots just back of anterior margin. Forewings dull greenish, apices subhyaline. Clavus reddish with ramose brown pigment marks. A large black spot on disc.

Genitalia: Female seventh sternum almost truncate, or slightly produced at middle. Male plate broadly rounded at apex. Style abruptly bent and narrowed to form a bluntly pointed apex. Aedeagus with shaft widened at apex and produced in a pair of erect lateral processes which are short and pointed. Aedalati tapered to slender, finger-like, apical processes which are curved abruptly anteriorly just before their apices.

Type: Holotype male from Mexico in the British Museum of Natural History.

Remarks: Known to occur only in Mexico. The type has been examined.

Ponana (Ponana) pamana, n. sp.
(Figs. 83-87)

Resembling puncticollis in general form and appearance but with different male genitalia and different color markings. Length of male 7 mm, female 7.7 mm.

Crown broadly rounded anteriorly, about one-third wider between eyes at base than median length. Ocelli large, pale in color.

Color: Yellowish tinged with orange, brown, and black. Crown with pale orange coloring. Pronotum yellow with black markings in a circlet just behind each eye. Scutellum yellow with the apex and basal angles darker. Forewings yellow, tinted with pale brown and with darker markings on claval area, heaviest on anterior half. A large dark brown spot on disc either side, apical veins brown and a diagonal line extending anteriorly from apex of clavus, dark brown.

Genitalia: Female seventh sternum with lateral angles produced and rounded, between which the posterior margin is shallowly concavely excavated either side of a median, produced lobe which is broadly, shallowly concavely notched at middle. The lobe is about two-thirds the width of segment and is produced beyond the lateral angles. Male plates long, widest at middle, inner margin convexly curving, outer margin sloping to form a blunt, narrowed, rounded apex. Style in ventral view broadly concavely notched on inner margin. Apical third narrowed to form a rather short, outwardly curved finger-like apex which is narrow and rather sharp pointed at tip. The aedeagus with the aedolati broadened just beyond middle, then rapidly narrowed and tapered to form slender, appressed apices. The shaft is long and slender, slightly enlarged just before apex with a short spine-like process on outer margin, each side, at tip.

Holotype male: R. Panama, Patrerillos, 12-12-52, F. S. Blanton collector. Allotype female: Cocoli, Panama, C. Z. 8-21-1946, N. L. H. Krauss. Paratypes: 2 males, Panama, Palm Beach, nr. San Carlos, 7-X-1952, F. S. Blanton collector; 1 female, Alhajuelo, C. Z. Pan. March 11, 1912, A. Busck collector; 1 female, Panama, Rio Hato, I-15-52, F. S. Blanton collector. Holotype, allotype, and paratypes in U. S. National Museum; paratype in the DeLong Collection.

Ponana (Ponana) xarela, n. sp.
(Figs. 88-92)

Resembling quadralaba in form and general appearance but with different color markings and different male genital structures. Length of male 9 mm.

Crown produced and rounded, not quite twice as wide between eyes at base as median length.

Color: Yellow with brown and pink markings. Crown yellow unmarked, ocelli red. Pronotum yellow with a pair of round black spots along anterior margin, one behind each ocellus. Scutellum yellowish. Forewings yellow, appendix and tips smoky; a brown spot on each cross vein between the first and second sectors. A pinkish stripe along inner clavus, extending from one-third the length of scutellum almost to tip of clavus.

Genitalia: Male plates rather short and broad, twice as long as broad, apices broad and truncate. Style in ventral view appearing only slightly excavated on inner margin. Apical fifth bent abruptly outwardly, apical portion rather slender, tapered to a pointed apex. Aedeagus with the aedalati tapered from middle to form slender, inwardly curved apical tips. The shaft is long and slender, a little broadened at apex and bearing two short terminal spine-like processes, one on each outer margin.

Holotype male: San Cristobal Las Casas, Chiapas, Mexico, Cerro de Heitepec 2700 m., VI-14-1926, A. Dampf. Paratypes: 4 males, same as holotype; 1 male, Mexico City, 7-2-32, A. Dampf; 1 male, Payo Obispo, Quintana Roo, VIII-30-1925. Holotype and paratypes in the DeLong Collection. Paratypes in the U. S. National Museum.

Ponana (Ponana) guatama, n. sp.
(Figs. 93-97)

Resembling fortina in form and appearance but usually with more brilliant coloration and with different male genitalia. Length of male 6.5 mm, female 7.5 mm.

Crown broadly rounded anteriorly, about one and two-thirds as wide between eyes at base as median length.

Color: Varying in intensity but with the same general color pattern. Crown dull yellow to bright orange, the central basal portion usually brownish. Pronotum with the four black spots as in related species. A large spot on each side just behind eye and two smaller spots just behind anterior margin, one behind each ocellus. A horizontal band across posterior portion and five longitudinal stripes extending anteriorly from this yellowish to bright orange or pink band. Scutellum variable in color but usually with apical angle pale. Forewings yellow to green with a few brown spots on disc and clavus; a pink marginal stripe along commissure on basal two-thirds of clavus.

Genitalia: Female seventh sternum with broadly rounded lateral angles between which the posterior margin is broadly shallowly excavated either side of a median produced lobe, which is broadly shallowly notched at middle about one-third the width of the segment and produced beyond the lateral angles. Male plates with the outer margin sloping and the inner margin curving to form a blunt, narrow pointed apex next to outer margin. Style slender, broadly shallowly excavated on inner margin at about middle. Apical third narrowed, then curved outwardly and tapered to pointed apices. Aedeagus with aedalati slender, apices bluntly pointed. Shaft with a short V-shaped notch at apex forming a pair of short, stout, divergent spines.

Holotype male: Santa Lucia and Patulul, Guat., 3-9-42, D. M. DeLong collector. Allotype female: Same as holotype. Paratypes: 2 males, 1 female, Rio Grande, British Honduras, June, 1932, J. J. White; 3 males, 3 females, Columbia, British Honduras, April, 1932, J. J. White; 1 male, Rio Temash, British Honduras, June 1934; 1 female, Alta V. Paz, Guatemala, 1-4, Cacao, Trece, Aguas, Schwartz, and Barber collectors; 1 male, Panama, Canal Zone,

6-25-1952; 1 female, Panama, R. P. Naranjai, X-1-1952; 1 female, (M. F. 1957), Huixtla, Chiapas, XI-21-1930. Holotype, allotype, and paratypes in the DeLong Collection. Paratypes in the U. S. National Museum, the Stockholm Museum, the North Carolina State University Collection, and the California Academy of Science Collection.

Ponana (Ponana) fortina, n. sp.
(Figs. 98-102)

Resembling occlusa in general form and appearance but with more coloration and different male genital structures. Length of male 6.7 mm, female 7 mm.

Crown broadly rounded anteriorly, more than one and one-half times as wide at base between eyes as median length.

Color: Yellowish green with black and reddish markings. Crown yellowish green unmarked. Pronotum same as crown with four round black spots. One, each side, is on the margin just behind the eye. Two near anterior margin are just behind the ocelli. Scutellum light brown with the apex pale. Forewings dull green tinged with yellow, a round brown spot on disc. Inner claval margin with a bright pinkish red margin extending from base of wing along scutellum and two-thirds the distance to the apex of clavus. A few irregular small brown spots are within this band of color.

Genitalia: Female seventh sternum with lateral angles broadly rounded to posterior margin which is broadly and very shallowly excavated either side of a median V-shaped notch with apex rounded, which extends about one-fourth the distance to base and is about one-fifth the width of segment. Male plates rather broad, apex sloping caudally to outer margin, bluntly angled on outer margin. Style in ventral view appearing broad, broadly shallowly excavated on inner margin beyond middle, apical sixth curved outwardly and abruptly narrowed to a pointed apex. Aedeagus with the aedalati slender, narrowed, and converging at apex. Shaft narrowed before apex, then slightly broadened bearing a pair of lateral spines, beyond which the apex is broadened and concavely notched forming a pair of terminal diverging teeth.

Holotype male: Fortin, Veracruz, Mexico, 10-9-41, DeLong, Good, Caldwell, and Plummer. Allotype female: Columbia, British Honduras, April, 1932. Paratypes: 3 males, 4 females, Rio Remas, Br. Honduras, Sept., 1937, A. J. White; 3 males, 3 females, Moralas, Guatemala, Oct., 1930, J. J. White; 1 male, Honduras, 9-27-34; 2 females, Punta Gorda, Br. Honduras, Feb. and May, 1931; 1 female, Alta V. Paz, Guatemala, 25-4, Cacao, Trece, Aguas, Schwartz, and Barber collectors; 1 male, Punta Gorda, Br. Honduras, 5-19-34, John L. Buys collector; 2 male, Mexico, El Salto Falls, 26 mi. W. Antiguo Morelos Tamps, 2000 ft., July 11-14, 1963, Duckworth and Davis; 1 female, Frontera, Tobasco, Mex., June, 1897, Townshend; 1 male (M. F. 2640), Monte Alto, Ver., VII-3-1932, A. Dampf; 1 male, (M. F. 2389) Chiltepec, Oaxaca, III-3-1932, A. Dampf; 1 female, (M. F. 1635), Los Mochis, Sinaloa, V-16-1930, A. Dampf. Holotype and paratypes in the DeLong Collection. Allotype and paratypes in the California Academy of Science Collection. Paratypes in the U. S. National Museum, the North Carolina State University Collection, and the Stockholm Museum.

Ponana (Ponana) vulana, n. sp.
(Figs. 103-107)

Resembling yena in form and appearance but with different male genital structures. Length of male 8.5 mm.

Crown broadly rounded, not quite twice as wide between eyes at base as median length.

Color: Crown pale brown with a small faint brown spot on base, one behind each ocellus. Pronotum pale brown with many minute, brown, punctate spots on disc and posterior half. A row of six round spots across anterior portion; two are behind each eye, one next lateral margin and a proximal spot; two are near anterior margin, one behind each ocellus. Scutellum dull yellow with brown spots in basal angles. Forewings subhyaline with rows of punctate spots along margins or parallel to veins. Small brown spots are on disc, clavus, anteapical and apical cells. The apical veins and crossveins, margined with brown.

Genitalia: Male plates more than twice as long as broad. Outer margin convexly bulged at middle, apex bluntly angled at outer margin. Style narrowed at about three-fourths its length, curved outwardly; apical fourth narrow almost parallel margined to near blunt apex. Aedeagus with the aedalati broadened at middle and tapered to each end. Apex narrow, pointed, shaft with two prominent pointed, separated apical processes. Pygofer with narrow blunt apex.

Holotype male: Yepacapa, Guatemala, August, 1948, H. T. Dalmat collector. Paratypes: 2 males, Same as holotype; 1 male, Pueblo, Mex., 10 miles E., XII-30-1940, G. E. Bohart collector; 1 male, San Bernadino Rio Mayo, Mex., VI-26-35, L. G. Gentner collector. Holotype and paratype in the U. S. National Museum. Paratypes in the California Academy of Science Collection and in the DeLong Collection.

Ponana (Ponana) pana, n. sp.
(Figs. 108-112)

Resembling fortina in form and general appearance but without the reddish coloration and with different male genital structures. Length of male 6.3 mm, female 7.5 mm.

Crown broadly rounded in front, almost twice as wide between eyes at base as median length.

Color: Greenish yellow, crown unmarked, pronotum with a series of four black spots; a larger one on each lateral margin just behind each eye and two smaller spots close anterior margin, one behind each ocellus. Scutellum yellowish, the basal angles darker, the apical angle paler. Forewings yellowish, appearing pale brownish when abdomen is beneath, with two rows of minute spots across folded wings, one row just back of scutellum and another row crossing just beyond middle of clavus.

Genitalia: Female seventh sternum with lateral angles broadly rounded to posterior margin which is almost truncate. There is a slight, broad excavation

either side of a median scarcely produced lobe slightly excavated at center, which is about the same length of the lateral angles. Male plates slightly concave on outer margin just before apex, convexly curved on inner margin to form a bluntly pointed apex on outer margin. Style in ventral view rather broad, broadly, shallowly notched on inner margin before middle. Apical fifth curved outwardly, rather thick and abruptly narrowed to pointed apices. Aedeagus with the aedalati broadened at middle, then tapered to slender, converging apices. The shaft gradually broadened to apex where it bears a median terminal process and two prominent diverging processes which extend diagonally from the middle of the apex.

Holotype male: Gatun Lake, Panama, XI-1-31, Tres Rios Plantation, T. O. Zschokke collector, E. P. Van Duzee Collection. Allotype female: Barro Colo, C. Z. IV, 1940, Jas. Zetek No. 4647. The holotype is in the California Academy of Science Collection. The allotype appears to be the same species and is in the U. S. National Museum.

Ponana (Ponana) xena, n. sp.
(Figs. 113-117)

A small blunt headed species resembling inflata in size and general appearance but with different male genital structures. Length of male 7 mm, female 8 mm.

Crown short and broad, scarcely angled, about one-third wider between eyes at base than median length.

Color: Pale straw color without definite markings.

Genitalia: Female seventh sternum with broadly rounded lateral angles between which the posterior margin is broadly shallowly excavated either side of a broad, slightly produced median lobe which is about half the width of segment and is slightly broadly notched at apex. The median lobe is a little longer than the lateral angles. Male plates broadened at middle, convexly rounded on inner margin and sloping on outer margin to form a blunt apex. Style in ventral view appearing shallowly notched on inner margin just before middle, apical fourth curved outwardly, slightly broadened just before apex, then abruptly narrowed to a pointed apex. Aedeagus with the aedalati broadened at middle then tapered to slender converging apices which are shorter than the shaft. Shaft slender, slightly narrowed just before apex which bears two prominent terminal spine-like processes. These arise on either side of apex, curve laterally and caudally and taper to sharp-pointed apices.

Holotype male: Zincauro, Gro., Mexico, 9-2-30 (M. F. 1789), J. Parra collector. Allotype female: Acatlan del Rio, Gro., Mexico (Rio Balsas Valley), VIII-10-1930. Paratypes: 13 males and 9 females, San Geronimo, Gro., 8-30-1930 (M. F. 1787), J. Parra collector; 3 males, Same as allotype; 4 males, Same as holotype; 1 male (M. F. 1785), Pandancuareo, Gro, Mexico, VIII-28-1930, Jose Parra. Holotype, allotype, and paratypes in the DeLong Collection. Paratypes in the U. S. National Museum, the California Academy of Science Collection, the Stockholm Museum, and the North Carolina State University Collection.

Ponana (Ponana) valeda, n. sp.
(Figs. 118-122)

Resembling rubida in form and appearance but with different male genital structures. Length of male 9.5 mm, female 10 mm.

Crown broadly rounded, more than twice as wide between eyes at base as median length.

Color: Crown straw yellow with a small, black spot behind each ocellus at base. Pronotum straw yellow with minute brown punctate spots uniformly distributed. Dark brown to black markings on anterior portion; a round black spot behind outer margin of each eye, and a curved line, enlarged at anterior end extending from this to spot at base of crown, a few other small irregular brown markings. Scutellum pale yellow with pale brown spots in basal angles. Forewings yellowish subhyaline, with rows and groups of small brown spots. A larger spot on disc and two or three along commissure at apex of scutellum.

Genitalia: Female seventh sternum with produced, rounded, lateral angles, between which the posterior margin is broadly excavated either side of a broad, rounded median lobe which is almost one-half the width of the segment and produced almost to the length of the lateral angles. Male plates with outer margin strongly convexly curved from base to apex, about one and one-half times as long as greatest width at middle. Inner margin almost straight, apex rather broadly rounded. Style slightly broadened at about three-fourths its length, then narrowed to form a tapered apical fourth which curves outwardly, caudally, and has a blunt narrow apex. Aedeagus with aedala broadened at middle, tapered at each end, apex pointed. Shaft with a pair of stout, divergent, apical processes which are rather short and extend beyond apices of aedala.

Holotype male: Jiutepec, Morelos, Mexico, IX-6-39, DeLong and Plummer. Allotype female: Chilpancingo, Gro., Mexico, X-27-41, DeLong, Good, Caldwell, and Plummer. Paratypes: 1 male, Same as allotype; 1 male and 1 female, El Dorado, Sin., Mexico, 2-27-32, A. Dampf; 3 males, Guadalajara Jal., Mexico, Km. 2645, X-3-41, DeLong, Good, Caldwell, and Plummer; 1 male, Buena Vista, Gro., Mexico, X-23-41, Km. 340, DeLong, Good, Caldwell, and Plummer. Holotype and paratypes in the DeLong Collection. Paratypes in the U. S. National Museum, and the Stockholm Museum.

Ponana (Ponana) aurata, n. sp.
(Figs. 123-127)

Resembling tama in form but without color markings and with different male genitalia. Length of male 7 mm, female 7.5 mm.

Crown broadly rounded, twice as wide between eyes at base as median length.

Color: Yellow to brownish yellow, without definite markings. The intensity of the yellow coloring is quite variable.

Genitalia: Female seventh sternum with rounded lateral angles between which the posterior margin is slightly broadly concavely excavated either side of a slightly produced, broad, median lobe. Male plate slender, more than twice as wide as long, distinctly widened at half its length, then concavely narrowed on outer margin to form a rather narrow, blunt apex, longest at tip, on outer margin. Style strongly bent at about one-third its length and widened on inner margin at two-thirds its length, beyond which it is narrowed and rather abruptly bent outwardly and tapered to a narrow apex. Aedeagus with aedali broadened at about middle. Shaft narrow with a pair of short, divergent, apical processes which extend just beyond apices of the aedali.

Holotype male: Yepocapa, Guatemala, May, 1950, H. T. Dalmat collector. Allotype female: Same data except May, 1948. Paratypes are all from Yepocapa, H. T. Dalmat collector; 2 males and 23 females, same as allotype; 2 females, Same as holotype; 1 male and 4 females, August, 1949. Holotype, allotype, and paratypes in the U. S. National Museum. Paratypes in the DeLong Collection, the Stockholm Museum, and the North Carolina State University Collection.

Ponana (Ponana) tura, n. sp.
(Figs. 128-132)

Resembling distortia in form and appearance but with fewer color markings and with different male genitalia. Length of male 7 mm, female 8 mm.

Crown broad, slightly produced at middle, almost bluntly angled. Twice as wide between eyes at base as median length.

Color: Crown pale dull yellow. Pronotum same shade of yellow with a few scattered reddish punctate spots on disc. A row of six black spots across anterior portion. One is close to the lateral margin on each side and a proximal spot are both behind the eye; two are close the anterior margin at middle, one behind each ocellus. Scutellum and forewings pale yellow unmarked.

Genitalia: Female seventh sternum with broadly rounded lateral angles between which the posterior margin is broadly, shallowly, concavely excavated either side of a median lobe which is about one-third the width of segment and is slightly notched at apex; lobe produced to about the length of the lateral angles. Male plates convexly rounded on outer margin at middle, more than twice as long as broad, apex blunt, rounded. Style narrowed at about seven-eighths its length, apical portion narrow, short, curved outwardly, apex abruptly sharp-pointed. Aedeagus with aedali rather narrow, broadened at middle, with narrow sharp-pointed apices. Shaft with two short, slender, separated apical processes. Pygofer tapered to a narrow, blunt apex.

Holotype male: San Bartolo, L. Calif., 5 mi. W., VII-13-38, Michelbacher and Ross collectors. Allotype female: Triunfo, L. Calif., VII-13-38. Paratypes: 3 males, Same as holotype; 6 males and 1 female, Same as allotype; 4 males, Miraflores, L. Calif., VII-10-38, Michelbacher and Ross; 1 female, Santiago, L. Calif., VII-8-38, Michelbacher and Ross. Holotype, allotype, and paratypes in the California Academy of Science Collection. Paratypes in the DeLong Collection and the Stockholm Museum.

Ponana (Ponana) xila, n. sp.
(Figs. 133-137)

Resembling aurata in form and size but with distinct color markings and different male genital structures. Length of male 5.7 mm, female 6.7 mm.

Crown broadly rounded, two-thirds as long at middle as basal width between the eyes.

Color: Crown yellow unmarked. Pronotum dull yellow with four black spots across anterior portion. A larger angularly shaped spot is near lateral margin behind each eye and a round spot is back of each ocellus. A very small spot is proximal to the large spot behind each eye. Scutellum pale, with basal angles darker. Forewings pale brownish yellow with two transverse rows of four spots, each extending from disc of wing across clavus; the spots on each side of commissure on clavus are smaller.

Genitalia: Female seventh sternum with lateral angles rounded, between which the posterior margin is slightly excavated either side of a broad, produced median lobe, more than half the width of segment and produced well beyond the length of the lateral angles. Male plates elongate, more than three and one-half times as long as wide, apex narrow, blunt, rounded. Style narrowed at about four-fifths its length, the apical fifth curved outwardly, tapered, apex sharp-pointed. Aedeagus with aedalati broadened at about two-thirds their length, then rapidly tapered to slender pointed apices. Shaft narrow with a pair of short, slender, separated apical processes.

Holotype male: Panama, Canal Zone, I-3-19, F. S. Blanton collector. Allotype female: Panama, Canal Zone, Ft. Gulick, XII-18-56, F. S. Blanton collector. Paratypes: All from Canal Zone, F. S. Blanton collector; 1 male, Panama, IV-17-52; 1 male, Panama, Mojinga Swp., I-8-1953; 1 male, Panama, Mindi Dairy, XII-17-51; 1 female, Madden Dam, IV-28-1952; 1 female, Ft. Clayton, Jan., 1952. Holotype, allotype, and paratype in the U. S. National Museum. Paratype in the DeLong Collection.

Ponana (Ponana) distortia, n. sp.
(Figs. 138-142)

Resembling xila in form and appearance but with different male genital structures. Length of male 7 mm, female 8.5 mm.

Crown broadly rounded, not quite twice as wide between eyes at base as median length.

Color: Crown dull yellow. Pronotum same tint with the four black spots on anterior portion; one on lateral margin behind each eye and one near anterior margin directly back of each ocellus. Scutellum dull yellow. Forewings dull yellow with two transverse rows of four spots each crossing clavus. The spots along commissure on clavus smaller and less prominent.

Genitalia: Female seventh sternum with rounded lateral angles between which the posterior margin is shallowly concavely excavated either side of a

pair of median broadly rounded lobes produced to the length of the lateral angles, separated by a broad, rather shallow V-shaped notch, the two lobes about two-thirds the width of the segment. Male plates elongate, almost four times as long as wide; outer margin convexly curved at middle, apex narrow, bluntly pointed. Styles narrowed just before short, curved, narrow bluntly tipped apex. Aedeagus asymmetrical; aedalati broadest at middle apices tapered and pointed. Shaft with a long basally directed process on one side and a short process caudally directed on the other side, which is narrowed and sharp-pointed at apex. Pygofer narrow and rounded at apex.

Holotype male: Tamazunchale, S.L.P., Mexico, July 15, 1963, 2 mi. S., Duckworth and Davis. Allotype female: Plancha, Piedra, Peteu, Guatemala, X-27-25 at light, A Dampf. Holotype in the U. S. National Museum. Allotype in the DeLong Collection.

Ponana (Ponana) vandera, n. sp.
(Figs. 143-147)

Closely related to cacozela but with different male genital characters. Length of male 8 mm, female 8.5 mm.

Crown broadly rounded, almost twice as wide between eyes at base as median length.

Color: Crown yellow. Pronotum yellow, disc and posterior portion with many minute dark brown punctate spots. A small round black spot behind each eye and irregular brown markings on median anterior portion. Scutellum pale yellow, basal angles pale brown. Forewings pale brownish yellow, with brown spots on inner clavus and on disc and area posterior to disc. Some markings are short and linear or vermiculate.

Genitalia: Female seventh sternum with posterior margin rather well produced and broadly convexly rounded between the lateral angles with a slight V-shaped notch at apex. Male plates about two and one-half times as long as wide. Widest at about middle, apex narrowed and truncate. Style broadest at about three-fourths its length, then rapidly narrowed to form a slender apical fifth which is curved outwardly, then basally with a tapered, pointed apex. Aedeagus with narrow aedalati, a little wider at about middle. Shaft slender with a pair of short, divergent, apical processes which extend just beyond tips of aedalati.

Holotype male: Orizaba, Veracruz, X-8-41, DeLong, Good, Caldwell, and Plummer. Allotype female: Same data as holotype. Paratypes: 1 male, Same as holotype; 1 male and 3 females, Fortin, Ver., X-9-41, DeLong, Good, Caldwell, and Plummer. Holotype, allotype, and paratypes in the DeLong Collection. Paratype in the U. S. National Museum, and the Stockholm Museum.

Ponana (Ponana) vedala, n. sp.
(Figs. 148-152)

Resembling valeda in form and appearance but paler in color and with different male genitalia. Length of male 9.5 mm.

Crown broadly rounded, two and one-half times as wide between eyes at base as median length.

Color: Crown pale yellow, unmarked. Pronotum pale yellow, disc and posterior half uniformly marked with minute brown punctate spots. Four small round brown spots across anterior portion, one behind each eye and one behind each ocellus. Scutellum pale yellow, basal angles brown. Forewings pale brown, subhyaline, with minute brown punctate spots margining veins on basal half. A few irregular brown markings along commissure and apex of clavus.

Genitalia: Male plate almost ovate, two and one-half times as long as broad, apex broad, almost truncate. Style slightly broadened at two-thirds its length, then gradually narrowed, curved outwardly on apical fourth and with a pointed tip. Aedeagus with aedala broadened at middle, apices tapered, sharp-pointed. Shaft split at apex forming a pair of long, divergent, sharp-pointed apical processes. Pygofer with narrow blunt apex.

Holotype male: Chilpancingo, Gro., Mex., X-25-41, DeLong, Good, Caldwell, and Plummer. Paratypes: 32 males, Same as holotype. Holotype and paratypes in the DeLong Collection. Paratypes in the U. S. National Museum, the California Academy of Science Collection, the North Carolina State University Collection, and the Stockholm Museum.

Ponana (Ponana) yena, n. sp.
(Figs. 153-157)

In general appearance resembling tena but with fewer color markings and with different male genital structures. Length of male 8 mm, female 9 mm.

Crown broadly rounded, about twice as wide between eyes at base as median length.

Color: Crown yellow. Pronotum yellow, disc and posterior half marked with many prominent small dark brown punctate spots. The four usual spots across anterior portion are present but paler in color. Scutellum yellow, basal angles with small brown spots. Forewings with rows of minute brown punctate spots, parallel with or as margins to the veins, apical veins margined with brown. Usually two brown spots are on disc and two on clavus along commissure.

Genitalia: Female seventh sternum with posterior margin almost truncate, sloping slightly basally from each lateral angle to middle. Male plates three times as long as broad, widest at about middle then gradually narrowed, with outer margin sloping to form a bluntly angled apex on the outer margin. Style slightly S-curved on apical half, the apical fifth tapered, curved outwardly and extending caudally with a sharp-pointed apex. Aedeagus with aedala broadened

at middle and tapered at each end, apices slender, pointed. Shaft narrow, bifid at apex, forming a pair of rather short, slender, divergent processes. Pygofer with a narrowed, rounded apex.

Holotype male: Tamazunchale, S.L.P., Mexico, 9-20-45, DeLong, Hershberger, Elliott. Allotype female: Same as holotype except 11-2-45. Paratypes: 2 females, Same as holotype; 1 male and 4 females, Orizaba, Ver., X-8-41, DeLong, Good, Caldwell, and Plummer; 3 females, Fortin, Ver., X-9-41, DeLong, Good, Caldwell, and Plummer; 1 male, Valles, S.L.P., IX-25-41, DeLong, Good, and Caldwell; 1 male and 1 female, Necaxa, Pue, 10-26-45, Stone, DeLong, Hershberger, and Elliott; 1 male, Ixmiquilpan Hgo., Mexico, IX-27-41, DeLong, Good, and Caldwell; 1 male, Buena Vista, Gro., Mexico, X-23-41 (K-340), DeLong, Good, Caldwell, and Plummer. Holotype, allotype, and paratypes in the DeLong Collection. Paratypes in the U. S. National Museum, the Stockholm Museum, the North Carolina State University Collection, and the California Academy of Science Collection.

Ponana (Ponana) tama, n. sp.
(Figs. 158-162)

Resembling valeda in form and appearance but smaller and with different male genital structures. Length of male 7.5 mm.

Crown rounded, not quite twice as wide between eyes at base as median length.

Color: Crown dull yellow without definite markings. Pronotum dull yellow, many darker punctate spots on disc and posterior portion. Four distinct black spots across anterior portion, one behind each eye and one back of each ocellus. A few other irregular dark spots on anterior portion. Scutellum pale yellow with brown spots in the basal angles. Forewings yellow with rows of minute brown punctate spots margining the veins, brown spots abundant between veins and with darker spots along commissure, along margin next to scutellum and along costal margin.

Genitalia: Male plate elongate, broadest at two-thirds its length then rapidly narrowed on outer margin to form a narrow blunt apex. Style broad, rather long, apical fifth narrow, bent outwardly, apex blunt. Aedeagus in ventral view with aedalati appearing broadest at middle, then tapering to each end. The shaft is slender and bears a pair of short apical processes which curve outwardly, then apically and exceed the aedalati in length.

Holotype male: Iguala, Gro., X-25-41, DeLong, Good, Caldwell, and Plummer, in the DeLong Collection.

Ponana (Ponana) yera, n. sp.
(Figs. 163-167)

Resembling xila in form and appearance but with different male genital structures. Length of male 7 mm.

Crown broadly rounded, two-thirds as long at middle as basal width between the eyes.

Color: Crown pale, brownish yellow. Pronotum same shade of yellow with a series of six black spots across anterior portion; a faint spot next lateral margin and a larger round spot close to it behind each eye; a darker round spot near anterior margin behind each ocellus. Scutellum dull, pale brownish yellow. Forewings same color with a few faint brown spots.

Genitalia: Male plates more than twice as long as wide with a convexly rounded bulge on the middle of outer margin, apices bluntly pointed. Style narrowed at four-fifths its length, forming a narrow apical fifth which is curved outwardly and is broadened just before pointed apex. Aedeagus with aedala broadened at middle, apical two-fifths slender, narrow and blunt at apex. Shaft broadened near apex and bearing a pair of slender terminal processes which are widely separated by a U-shaped depression. Pygofer with a narrow, blunt apex.

Holotype male: Acapulco, Guerrero, Mexico, XII-17-1929, at light along sea coast, A. Dampf, in the DeLong Collection.

Ponana (Ponana) mexella, n. sp.
(Figs. 168-172)

Resembling citrina in form and appearance but with a shorter head and with different genitalia. Length of male 8 mm, female 9.5 mm.

Crown broadly rounded anteriorly, more than one-third wider between eyes at base than median length.

Color: Yellowish green often tinged with pale brown, without definite markings.

Genitalia: Female seventh sternum with lateral angles rounded, between which the posterior margin is shallowly concavely excavated either side of a median produced lobe which is broadly angularly notched at middle causing it to appear almost as two lobes. The lobe is half as wide as the segment and is produced beyond the lateral angles. Male plates convexly curved on outer margin near base. Inner margin convexly rounded at apex to form rounded apex of plate at outer margin. Style in ventral view widened on inner margin, then convexly rounded at middle to form outwardly bent, tapered, pointed apices. Aedeagus with the aedala tapered from near middle to form slender contiguous apices. The shaft is long and slender, broadened at two-third its length and terminating in a pair of short, spine-like processes, one on each outer margin at apex.

Holotype male: Saltillo Coahuila, Mexico, VI-10-1931 (swept from onion blossoms), A. Dampf. Allotype female: Same as holotype. Paratypes: 3 males, same as holotype; 2 males, Neuvo Leon (desert region), VI-5-1931, A. Dampf; 1 male, Starr County, Tex., D. J. and J. N. Knull; 1 male, Hidalgo County, Tex., 3-20-60, D. J. and J. N. Knull. Holotype, allotype, and paratypes in the DeLong Collection. Paratype in The Ohio State University

Collection, the California Academy of Science Collection, the Stockholm Museum, and the U. S. National Museum.

Ponana (Ponana) tamala, n. sp.
(Figs. 173-177)

Resembling chiapa in form, appearance, and coloration but with different male genital structures. Length of male 7 mm, female 7.5 mm.

Crown broadly rounded anteriorly, almost twice as wide between eyes at base as median length.

Color: Crown yellow unmarked. Pronotum yellow with a faint brownish spot at about half the length of pronotum and behind each eye. A pair of round black spots on anterior portion, one behind each ocellus. Scutellum brown except paler apical angle. Forewings yellow with a longitudinal brown stripe extending from scutellum to apical cells. The coloration is darker along sides of scutellum extending as far as middle of clavus and disc of wing. The caudal portion of the stripe is paler.

Genitalia: Female seventh sternum with lateral angles broadly rounded to posterior margin which is broadly concavely excavated each side of a median produced, broad, blunt tooth which is about one-fifth the width of segment and not produced to the length of the lateral angles. Male plates with broadly rounded apices. Styles narrowed at three-fourths their length, then curved outwardly forming slender bent tips which are sharply angled at apex. Aedeagus with the aedali appearing constricted at three-fourths their length, then produced with apices slender, sharp pointed and may at times be crossed. The shaft slender, gradually widened at three-fourths its length to apex which bears a pair of caudally directed spine-like processes, one on each outer margin between which is the rounded tip.

Holotype male: Sta. Lucia, Patulul, Guatemala, 3-9-1942, D. M. DeLong. Allotype female: Same data as holotype. Paratypes: 1 male, 1 female, same as holotype; 1 male and 1 female, Hayon Chiquito, Guatemala, 3-4-1942, DeLong; 1 male, Duentas, Guatemala, 3-10-42, DeLong; 1 male, Alta V. Paz, Guatemala, Cacao, Trece, Aguas, Schwartz and Barber collectors; 2 females, Yepocapa, Guatemala, Dec., 1948, H. T. Dalmat collector; 1 male, Guatemala City, 1932, C. N. Ainslie collector; 1 female, Tiquisate, 1-26-1955, J. Castro; 31 males and 34 females, Yepocapa, Guat., 1949; 4 males and 4 females, April, 1949; 16 males and 17 females, May, 1948, all collected by H. T. Dalmat. Holotype, allotype, and paratypes in the DeLong Collection. Paratypes in the U. S. National Museum, the California Academy of Science Collection, the North Carolina State University Collection, and the Stockholm Museum.

Ponana (Ponana) tresia, n. sp.
(Figs. 178-182)

Resembling fortina in general form and appearance but with different male genital structures. Length of male 9 mm.

Crown broadly rounded, more than half as long at middle as basal width between the eyes.

Color: Crown and pronotum bright yellow, unmarked. Scutellum darker on basal half, apical half yellow. Forewings with a darkened area along sides of scutellum which extends to apex of clavus and is broadened at middle of clavus extending to the disc where it terminates in a brown spot. Veins yellow, apical cross veins brown.

Genitalia: Male plates elongate, two and one-half times as long as broad, apex rather broad, truncate. Style abruptly narrowed at more than four-fifths its length, bent outwardly and tapered to a narrow sharp-pointed apex. Aedeagus with the aedala broadened at middle and tapered to both ends, apices narrow sharp-pointed. Shaft with a pair of very short slender separated apical processes. Pygofer with a sharp-pointed apex.

Holotype male: Omalteme, Guerrero, Mexico, 8000 ft., July, H. H. Smith collector, in the U. S. National Museum.

Ponana (Ponana) dohrnii (Stal)

Gypona dohrnii Stal, 1864, p. 82.

The narrow head and broad pronotum cause this species to resemble superficially, Texananus majestus (Osb.). The color is similar to punctipennis Stal. Length, 8-9 mm.

Crown short, broadly rounded, about twice as wide between eyes at base as median length. Pronotum strongly, angularly produced on humeral angles, conspicuously wider than head.

Color: Dull brownish yellow; a black spot behind each eye on base of crown, one behind each of these on anterior portion of pronotum, and a spot behind each eye on pronotum; brown. Disc and posterior portion of crown marked with fine brownish punctures. Forewings pale marked with small brown spots and a few ramose pigment lines.

Genitalia: Female seventh sternum with posterior margin slightly produced and broadly, convexly rounded at middle.

Type: Holotype female from Mexico in the Stockholm Museum.

Remarks: This species is known from Mexico only. The type has been examined.

Ponana (Ponana) heiroglyphica (Fowler)

Gypona heiroglyphica Fowler, 1903, p. 312.

A light brownish species closely related to puncticollis. Length, 6-7 mm. Crown broadly, roundedly produced, margin of crown thick.

Color: Light brownish; pronotum with four round black spots in a row just back of anterior margin. Basal angles of scutellum fuscous.

Genitalia: Female seventh sternum with lateral angles produced between which the posterior margin is shallowly, concavely, sinuately excavated. A broad notch at middle and a slight notch next each lateral angle give the appearance of two broad round lobes. Male unknown.

Type: Holotype female from Mexico in the British Museum of Natural History.

Remarks: This species is known to occur only in Mexico. The type has been examined.

Ponana (Ponana) reservanda (Fowler)

Gypona reservanda Fowler, 1903, p. 313.

Closely related to heiroglyphica but with crown more produced and female segment more deeply excavated. Length, 7 mm.

Crown bluntly produced, apex rounded, margin thick.

Color: Brown; pronotum with four black spots just back of anterior margin. The central pair are more elongate. Forewings with a large black spot on each costal margin behind the middle.

Genitalia: Female seventh sternum broadly rather deeply excavated between the lateral angles; posterior margin slightly notched at middle forming two broad, rounded lobes.

Type: Holotype female from Mexico in the British Museum of Natural History.

Remarks: Recorded only for Mexico. The type has been examined.

Ponana (Ponana) bisignata (Fowler)

Gypona bisignata Fowler, 1903, p. 313.

Closely related to reservanda but with different markings and female genitalia. Length, 8-9 mm.

Crown broadly produced, rounded at apex.

Color: Light brown; pronotum with four large black spots just back of anterior margin. Forewings with small scattered black punctures and a large black spot on the middle of each disc.

Genitalia: Female seventh sternum broadly, shallowly notched at middle and concavely rounded inside each lateral angle, forming two broad median rounded lobes. Male unknown.

Type: Holotype female from Mexico in the British Museum of Natural History.

Remarks: Known to occur in Mexico and Guatemala. The type has been examined.

Ponana, Subgenus Neoponana, new subgenus

Resembling typical ponana species in appearance. Crown broadly rounded, depressed just above margin and transversely depressed just below margin of head with a median transverse carina on clypeus between ventral portion of antennal sockets. Margin with a few coarse, deeply grooved striae, and more abruptly produced next eyes than in Ponana. Aedeagal shaft usually not cleft at apex (except in bola), usually with prominent lateral processes arising on terminal portion (except bola and dulera. Style sometimes cleft at apex.

Type species: Ponana (Neoponana) demela, n. sp.

The transverse carina on the clypeus of these leafhoppers appears very prominent in both sexes and will separate this subgenus from the other two.

Key to Species of Neoponana (Males)

- 1. Aedeagal shaft with conspicuous lateral processes (Figs. 198, 203) 3
- 1' Aedeagal shaft without lateral processes (Figs. 188, 193)..... 2
- 2 (1') Aedeagal shaft cleft at apex forming two caudally produced separated apical spines (Fig. 188)..... bola
- 2' Aedeagal shaft tapered and bluntly pointed at apex (Fig. 193)..... dulera
- 3 (1) Style cleft at apex, forming two apical portions (Figs. 205, 215) 4
- 3' Style not cleft at apex, usually with a curved or bent apical portion (Figs. 200, 235, 255) 7
- 4 (3) Style with the two terminal pieces appressed, lateral processes of aedeagal shaft curving ventrally (Fig. 220) atea

Key to Species of Neoponana (Males)

- 4' Style with the terminal pieces curving or angled away from each other; aedeagal lateral processes straight extending laterally and slightly basally (Figs. 203, 205) 5
- 5 (4') Style with the longer apical portion curving outwardly (Figs. 205, 210) 6
- 5' Style with the longer apical portion almost straight, slightly curving caudally (Fig. 215)..... cerosa
- 6 (5) Style enlarged on inner margin just before middle, plates narrower, pygofer spine slender tapered to pointed apex (Figs. 205, 206) cerella
- 6' Style almost equal in width, plate more broadened, apical pygofer spine wider, blunt and rounded at apex (Figs. 210, 211) demela
- 7 (3') Aedeagal shaft with lateral processes arising apically or subapically, extending laterally or caudally (Figs. 198, 243, 248, 253) 8
- 7' Aedeagal shaft with lateral processes arising about one-sixth the distance from apex, and curved basally and inwardly (Figs. 223, 228, 233, 238)..... 11
- 8 (7) Aedeagal shaft enlarged at apex, with short lateral processes arising on sides of enlarged portion and curved caudally. Aedalati abruptly narrowed at their apices (Fig. 198) anepa
- 8' Aedeagal shaft with lateral processes longer, arising apically. Aedalati gradually tapered to pointed apices (Figs. 248, 253) 9
- 9 (8') Style with a very short bent portion at apex (Fig. 255)..... berta
- 9' Style with the apical bent portion long, conspicuous (Figs. 245, 250) 10
- 10 (9') Aedeagal shaft with lateral processes rather short and stout, style with apical portion long and slender (Figs. 243, 245) avena
- 10' Aedeagal shaft with long very slender lateral processes, style with apical portion shorter and broader (Figs. 248, 250) clata
- 11 (7') Aedeagal shaft with lateral processes bifid (Figs. 223, 233, 238) 12
- 11' Aedeagal shaft with lateral process single (Fig. 228)..... anela
- 12 (11) Aedeagal shaft with lateral processes producing a short spur at about half its length, style without a heel on apical foot portion (Figs. 223, 225) bera

Key to Species of Neoponana (Males)

- 12' Aedeagal shaft with bifid lateral processes producing two long slender, curved pieces, style with a heel on apical foot portion (Figs. 233, 238, 235, 240) 13
- 13 (12') Plate elongate, rounded at apex, style with narrow, rounded heel, toe of foot narrow, sharp pointed (Figs. 236, 235) dana
- 13' Plate blunt, more pointed, style with heel broader, more rounded, toe of foot slender but broader apically (Figs. 241, 240) cesta

Ponana (Neoponana) bola, n. sp.
(Figs. 186 and 188-192)

Resembling dohrnii in form and general appearance but with different male genital structures. Length of male 8 mm, female 8.5 mm.

Crown broadly convexly rounded, more than half as long at middle as basal width between eyes.

Color: Dull brownish yellow with a pale brownish spot on base behind each ocellus. Pronotum with spots and vermiculate markings just behind anterior margin. Forewings with a white spot at middle of clavus on wing margin with a brown spot on each side. Base of clavus with dark brown spots, a large brown spot at middle on costal margin and small brownish spots on corium.

Genitalia: Female seventh sternum with produced rounded lateral angles between which the posterior margin is broadly shallowly excavated either side of a broad produced median lobe, which is more than half the width of the segment, produced to the length of the lateral angles and is broadly, shallowly notched at apex. Male plates broadened at two-thirds their length, then rapidly tapered to blunt apices. Styles rather broad, deeply concavely notched at two-thirds their length, then broadened on inner margins and tapered to a pointed apex. Aedeagus with aedalati broadest near base, then narrowed and slender to near apex where they are slightly broadened and blunt at apex; shaft slender and tapered to a slightly wider apex which is composed of two slightly separated pieces which converge at tip. Pygofer blunt at apex.

Holotype male: Gatun Lake, Panama, 9-8-1931, Tres Rios Plantation, T. O. Zschokke collector, E. P. Van Duzee Collection. Allotype female: Same as holotype. Paratypes: 8 males, same data as holotype except most dated X-1931; 1 male, Trinidad Rio., Panama, 1-VI-12, A. Busck; 1 male, Panama, Mojinga Swp., C. Z., 20-XI-1951, F. S. Blankton collector. Holotype, allotype, and paratypes in the California Academy of Science Collection. Male paratypes also in the U. S. National Museum, the DeLong Collection, and the Stockholm Museum.

Ponana (Neoponana) dulera, n. sp.
(Figs. 187 and 193-197)

Resembling dohrnii in form and size but paler in color and with different male genital structures. Length of male 8 mm, female 9 mm.

Crown broadly convexly rounded, more than half as long at middle as basal width between the eyes.

Color: Dull dark yellow to pale brown. Crown with a small black spot at base, back of each ocellus. Pronotum with small black spots and vermiculate markings just behind anterior margin. Forewings with reddish veins. A pale spot near middle of clavus on wing margin. Several spots along costa, a few on corium and apical cross veins, dark brown.

Genitalia: Female seventh sternum with prominent lateral angles between which the posterior margin is deeply excavated either side of a broad rounded median lobe which is half the width of the segment and is produced to the length of the lateral angles. Male plates broadest at two-thirds their length, then rapidly tapered to a blunt, rounded apex. Style rather broad, elongate, deeply concavely excavated on ventral margin at about two-thirds its length, then broadened again, bent outwardly and tapered to a blunt apex. Aedeagus with aedalati rather broad at base, narrowed a little at middle, then broadened again just before apex and rounded to appressed blunt apices; shaft long, slender, exceeding the aedalati in length and with a blunt apex. Pygofer with ventral apical angles bluntly pointed.

Holotype male: Barro Colo. I., C. Z., V-24-40, Jas. Zetek, No. 4656, in the U. S. National Museum Collection. Allotype female: Barro Colorado, C. Z., 9-II-36, collected by Gertsch, Lutz, Wood, in the American Museum of Natural History Collection. Paratypes: 1 male, Gatun Lake, Panama, VIII-16-1931, Tres Rios Plantation, T. O. Zschokke collector, E. P. Van Duzee Collection, in the California Academy of Science Collection; 1 male, Barro Colorado Isl., Panama, IV-28-30-1964, W. D. and S. S. Duckworth, in the U. S. National Museum Collection; 1 female, Mojinga Swp., C. Z., Panama, IV-16-1952, in the U. S. National Museum.

Ponana (Neoponana) anepa, n. sp.
(Figs. 198-202)

Resembling bola in form and appearance but darker in color and with distinct male genital structures. Length of male 9 mm.

Crown broadly, convexly rounded, more than half as long at middle as basal width between eyes.

Color: Pale brown, pronotum with a series of irregular spots along anterior margin. Scutellum dark anteriorly and pale posteriorly. Forewings brown with a white spot between two dark brown spots on middle of clavus at margin of wing; a large black spot on corium and another anterior to it approximately half way to base of wing.

Genitalia: Male style concavely narrowed on outer margin at about two-thirds its length and producing a laterally extending apical fourth which is slender and tapers to a pointed apex. Aedeagus with aedalati roundedly broadened on apical third, blunt at apex; shaft slender, extending to apex of aedalati with two minute curved apical spines. Pygofer with ventral portion of apex blunt, rounded, and thickened.

Holotype male: Columbia: 24 mi. W. Villovicencia, Meta., 1120 m., III-12-55, E. I. Schlinger and E. S. Ross collectors, in the California Academy of Science Collection.

Ponana (Neoponana) cerella, n. sp.
(Figs. 203-207)

Resembling cleta in form and appearance but with different male genital structures. Length of male 8.5 mm.

Crown broadly convexly rounded, more than half as long at middle as basal width between eyes.

Color: Dull yellow to pale brown with darker spots and pale areas. Crown yellow with a dark brown area surrounding and between ocelli. Pronotum yellow with dark brown markings surrounding pale areas, across anterior half. A semicircular band arises at basal angles of scutellum and curves across the median posterior half. Scutellum yellow with dark spots in basal angles. Forewings mottled with white and dark brown. Clavus along wing margin marked with three white and two brown spots, alternating from apex of scutellum to apex of clavus. Anterior half of the costal area pale. A series of fused brown spots extends from the middle of costa to the corium. Posterior portion of the forewing brown or smoky.

Genitalia: Male plates rather long with outer margins broadly convexly rounded, apices bluntly angled. Style long, rather narrow, broadened at four-fifths its length and cleft at middle so as to form two curved, sharp pointed, finger-like projections. The inner one a little broader and the outer one slightly longer. Aedeagus short, broad at base, aedalati tapered to a narrow apex. Shaft narrow, as long as aedalati, bearing a pair of slender processes at apex which are one-third as long as shaft and extend laterally. Pygofer with a pair of conspicuous finger-like processes at apex, either side, extending caudally and inwardly.

Holotype male: Sinchono, Peru, J. G. Sanders, without specific data, in the DeLong Collection.

Ponana (Neoponana) demela, n. sp.
(Figs. 208-212)

Resembling berta in form and appearance but with different male genital structures. Length of male 8.5 mm.

Crown broadly convexly produced, more than half as long at middle as basal width between the eyes. Pronotum more than twice as long as crown.

Color: Pale brown to dull yellow, marked with darker spots and paler areas. Crown, pronotum, and scutellum dull yellow. Disc of pronotum tinted with brown. A series of darker spots extending across anterior portion and behind eyes. Scutellum with dark brown basal angles. Forewings pale brown. A white spot with a proximal brown spot on each side at middle of clavus along wing margin. Dark brown medial areas extending from costa to corium. Veins dark brown, costal cells smoky.

Genitalia: Male plates broadly convexly rounded on outer margins, apex rounded. Style elongate, rather narrow, slightly broadened at three-fourths its length and bifid, forming a shorter inner 'thumb' and an outer curved "finger" process which is twice the length of the "thumb." Aedeagus rather short, broadened at base. Shaft narrow, about as long as aedealati and tapered to a narrow apex which bears a pair of short narrow processes at tip. The processes are about one-third the length of shaft. Pygofer with large, conspicuous, heavily chitinized, thumb-like processes extending caudally and inwardly from apex on each side.

Holotype male: Peru, Monson Valley, Tingo Maria, XII-11-1954, E. I. Schlinger and E. S. Ross collectors, in the California Academy of Science Collection.

Ponana (Neoponana) cerosa, n. sp.
(Figs. 213-217)

Resembling atea in form and appearance but with different male genital structures. Length of male 11 mm.

Crown broadly roundedly produced, more than half as long at middle as basal width between eyes.

Color: Bright yellow, ocelli reddish, basal angles of scutellum darker. Dark markings similar to atea. A pair of small circular spots near base of forewing and proximal to costa. A pair near middle and a pair near apex of clavus on posterior margin of wing, and a spot on corium, each side. Apical cells slightly smoky.

Genitalia: Male plates long, rather narrow, blunt at apex. Style rather broad, elongate, concavely excavated near apex on inner margin to form a narrow produced, finger-like apex which is about one-ninth the length of style. Aedeagus with aedealati rather narrow, the apex slightly narrower. Shaft narrow for about the length of aedealati, with a pair of slender processes arising at apex which are about one-third the length of shaft and extend laterally. Pygofer with a broad, conspicuous sharp-pointed tooth on each side of dorsal margin not far from apex.

Holotype male: Pillahuata, Paucartambo, Prov. Dept. Cusco, Peru, Dec. 13, 1952, F. L. Waytkowski, deposited in the North Carolina State University Collection.

Ponana (Neoponana) atea, n. sp.
(Figs. 218-222)

Resembling cacozela in general appearance and coloration but more slender, elongate, with different markings and different male genitalia. Length of male 10 mm.

Crown broadly convexly rounded, more than half as long at middle as basal width between the eyes. Ocelli large, separated from each other by twice the distance that each is distant from proximal eye.

Color: Lemon yellow, basal angles of scutellum slightly darker. Forewings with several small black or circular spots. A small round spot on each side just back of clavus on anterior portion of wing. A pair of spots, usually circular with pale centers on clavus just beyond apex of scutellum. A similar spot on corium, each side and a smaller one near apex of clavus bordering margin of wing. The markings will vary in size and intensity.

Genitalia: Male plates long, narrow, rounded at apex. Style broad on basal third, then narrowed to near apex where it is slightly broadened and deeply cleft forming an inner thicker and an outer more slender finger-like process. The outer processes are a little longer and the two are contiguous. Aedeagus with the aedalati rather broad, narrowed and sloping to blunt apices. Shaft rather broad, narrowed near middle and again at apex. In lateral view appearing notched at middle with a pointed spine on ventral margin and bearing a pair of long, slender processes at tip on ventral margin about one-half as long as shaft. Pygofer with a pointed tooth extending from dorsal apical margin on each side.

Holotype male: Sinchona, Peru, J. G. Sanders, without specific data. Paratype males: 2, same data as holotype; 1, Santa Isabel, Cusca, Peru, Dec. 7, 1951, F. L. Waytkowski. Holotype and paratypes in the DeLong Collection, paratype in the North Carolina State University Collection.

Ponana (Neoponana) bera, n. sp.
(Figs. 223-227)

Resembling anela in form and appearance but with different male genitalia. Length of male 9 mm.

Crown broadly rounded, almost twice as wide between eyes at base as median length and less than half as long as pronotum.

Color: Pale brown with darker spots and paler areas. Crown rather dark brown. Pronotum mostly dark brown with paler circular areas just behind eyes, and pale at base. Scutellum dark brown on basal half, paler on apical portion. Forewings pale brown with a dark spot proximal to a pale spot at middle of clavus along wing margin. A series of dark spots along costal margin. Veins pale, margined with brown; cross veins of apical cells and spots along claval veins, dark brown.

Genitalia: Male plates elongate, rather slender and blunt at apex. Styles

rather slender, elongate, slightly enlarged near base with apical fifth slender, bent outwardly and tapered to a sharp-pointed apex. Aedeagus with aedalati rather broad, narrowed slightly on middle, then broadened to form a pair of apical pieces which are thickened and taper to slender pointed tips; shaft long, slender, not reaching to the tip of the aedalati; a pair of lateral curved processes arise not far from apex which extend outwardly where a branched spur arises before they curve basally. Pygofer with blunt rounded apices.

Holotype male: Tingo Maria, Huan, Peru, May 21, 1947, Alt. 2200 Ft., J. C. Pallister coll., Donor Frank Johnson. Paratype male: Same locality and data as holotype except collected October 19, 1946. Holotype and paratype in the American Museum of Natural History Museum.

Ponana (Neoponana) anela, n. sp.
(Figs. 228-232)

Resembling dohrnii in general form and appearance but darker in color and with different male genitalia. Length of male 9 mm.

Crown broadly roundedly produced, not quite twice as wide between eyes at base as median length and less than half as long as pronotum.

Color: Pale brown with darker brown and paler markings. Crown mostly dark brown, paler at base. Pronotum pale brown with irregular darker markings along the anterior margin. Scutellum darker on anterior half with basal angles and two small spots at base equidistant from basal angles and each other, pale. Forewings with clavus pale brown marked with dark areas at base and with a pale spot at middle along suture; costal area dark with a series of pale spots. Veins pale, margined with brown, cells paler, two dark spots on corium along claval vein, cross veins before apical cells, dark brown.

Genitalia: Male plates narrow and blunt at apex. Styles rather narrow, curved slightly outwardly on median half, apical fifth bent outwardly, very slender, tapered and sharp pointed. Aedeagus with aedalati rather broad, slightly narrowed at middle, apical portions rather broad with sharp-pointed apices; shaft rather slender, not as long as aedalati, with a pair of lateral curved pieces arising just before apex and curving outward, basally, then in toward shaft. Pygofer with apical ventral tips blunt.

Holotype male: Tingo Maria, Peru, XI-1949, H. A. Allard, in the U. S. National Museum. Paratype male: Middle Rio Ucayali, Peru, VII-26, F 6116, H. Bassler Collection, Acc. 33591, in the American Museum of Natural History Collection.

Ponana (Neoponana) dana, n. sp.
(Figs. 233-237)

Resembling bera in form and appearance but with different male genitalia. Length of male 9.5 mm.

Crown broadly roundedly produced, almost twice as wide between eyes at base as median length.

Color: Pale brown marked with darker and paler spots. Crown rather dark brown. Pronotum paler brown with darker spots and areas on either side behind eyes. Scutellum pale brown with basal angles darker. Forewings pale brown, veins brown margined; marked with dark brown spots along costal margin, on clavus, along margin of wing and two on corium. Apical cross veins and tips of wings brown.

Genitalia: Male plates elongate, rather narrow, blunt at apex. Styles narrow, a little broader at base, abruptly bent at right angles at four-fifths its length; the apical portion straight, slender, and tapered to a sharp pointed apex; in lateral view with a rounding protruding heel at base of bent portion. Aedeagus with the aedalati broad at base then narrowed at about the middle and produced, forming a pair of elongate apical structures which are tapered to sharp pointed apices. Shaft rather slender and not as long as the aedalati, appearing split at apex, forming proximal paired tips. A pair of lateral processes arise just before this apical split portion and are bifid at about half their length, both pieces of each process curving basally and inwardly and about the same length. Pygofer with the apices blunt, rounded, normal in appearance.

Holotype male: Peru, Monson Valley, Tingo Maria, XII-18, 1954, E. I. Schlinger and E. R. Ross collectors. Paratype male: Same locality and data. Both in the California Academy of Science Collection.

Ponana (Neoponana) cesta, n. sp.
(Figs. 238-242)

Resembling quadralaba in form and appearance but with different male genitalia. Length of male 10 mm.

Crown broadly convexly rounded, almost twice as wide between eyes at base as median length.

Color: Pale brown marked with darker brown. Crown brown, unmarked. Pronotum paler brown with darker spots behind eyes on basal portion. Scutellum brown, apical half paler. Forewings pale brown with darker markings at base of clavus, a paler spot on clavus at middle along wing margin; a few dark spots at middle of costa, on corium, and apical cells. Veins pale, dark margined.

Genitalia: Male plates rather long, slender, apices blunt. Styles slender, slightly enlarged near base. Median portion broadly curving outwardly, apical fifth bent outwardly, slender, tapered to a sharp pointed apex. Aedeagus with aedalati rather broad at base, slightly narrowed on middle and producing a pair of apical pieces which are thickened, elongate and tapered to a pointed apex; shaft slender and appearing cleft at apex, a pair of lateral processes arising just before the cleft portion which curves outwardly, basally and inwardly to form tightly curled rings. Pygofer with normal apices.

Holotype male: Sinchono, Peru, without specific data, J. G. Sanders collector, in the DeLong Collection.

Ponana (Neoponana) avena, n. sp.
(Figs. 243-247)

Resembling bera in form and general appearance but with different male genital structures. Length of male 9 mm.

Crown broadly convexly rounded, not quite twice as wide between eyes at base as median length.

Color: Pale brown with dark and pale markings. Crown and pronotum dark brown, a pale area enclosing a dark spot behind each eye on pronotum. Scutellum brown with three white spots on each side next to base of wings. Forewings pale brown, veins margined with dark brown. A white spot between two proximal dark brown spots at middle of clavus bordering wing margin. Median costal area with brown spots and three spots on corium. Apical cells smoky.

Genitalia: Male plates elongate, almost parallel margined, apices blunt. Style curved, elongate, narrow, bent abruptly outwardly at about four-fifths its length, the apical portion extending outwardly at a right angle, tapered and sharply pointed, without protruding basal "heel". Aedeagus rather broad, the apical third of aedalati appearing heavily chitinized and each side tapered to a pointed apex. Shaft long and narrow, slightly shorter than the aedalati and bearing a pair of short slender processes at the apex which are about one-fifth the length of shaft and extend outwardly. Pygofer with the apex blunt and rounded.

Holotype male: Santa Isabel, Dept. Cusco, Peru, November 20, 1951, Felix L. Waythowski, in the North Carolina State University Collection.

Ponana (Neoponana) cleta, n. sp.
(Figs. 248-252)

Resembling berta in form and appearance but with different male genital structures. Length of male 8.5 mm.

Crown broadly convexly rounded, twice as broad between eyes at base as median length. Pronotum two and one-half times as long as crown.

Color: Brown, forewings marked with darker and paler spots. Crown and pronotum darker brown, a few paler areas on anterior and lateral portions. Scutellum with anterior half dark, brownish, apical half pale. Forewings dull brownish yellow, veins darker. A paler spot between two dark brown spots on middle of clavus and bordering wing margin. Dark markings on median costal margin and a large brown proximal spot on corium. Apical veins and cross veins dark brown.

Genitalia: Male plates elongate, broadened at about middle sloping to narrow, blunt apices. Style elongate, narrow, bent at four-fifths its length to form a slightly broader apical portion which extends outwardly and is blunt at apex. Aedeagus with the aedalati broad and tapered to a narrow pointed apex. Shaft slender and extends well beyond the aedalati and bears a pair of long, slender processes at the apex which are about half the length of the

shaft and extend laterally. Pygofer with apices blunt and rounded.

Holotype male: Sinchono, Peru, J. G. Sanders, without specific data, in the DeLong Collection.

Ponana (Neoponana) berta, n. sp.
(Figs. 183-185 and 253-257)

Resembling bera in form and general appearance but more vividly marked and with different male genitalia. Length of male 8.5 mm.

Crown broadly convexly rounded, twice as wide between eyes at base as median length.

Color: Mostly pale brown with rather distinct dark and light markings. Crown dark brown, the basal margin paler. Pronotum with disc and posterior portion darker, the lateral and anterior margins are dull yellow with darker spots and blotches. Scutellum brown anteriorly, yellow apically. Forewings brownish, veins dark brown; a white spot between two dark brown spots at middle of clavus along wing margin. A series of dark spots, some of which are merged, at middle of costal margin and two brown spots proximal to these on the corium.

Genitalia: Male plates elongate, broadened at middle, apices narrowed and blunt. Style elongate, rather narrow, broadened at base and again at four-fifths its length where it bends rather abruptly outwardly, is narrowed and with a blunt apex. Aedeagus with the aedalati broadest at less than half its length, narrowed and tapered to apex. Shaft longer than aedalati with a pair of long slender processes which arise at apex and extend laterally. Pygofer with apices rounded, normal.

Holotype male: Santa Isabel, Dept. Cusco, Peru, Dec. 6, 1951, Felix L. Waythowski. Paratype males: 5, same as holotype; 1, Chincaniago, Peru, without specific data; 1, Callangra, Pancartambo Prov., Dept. Cusco, Peru, Feb. 19, 1952, F. L. Worthowski. Holotype and paratypes in the North Carolina State University Collection. Paratype in the DeLong Collection.

Ponana, Subgenus Bulbana DeLong

Green, robust species with crown usually bluntly angled, depressed just above and before prominent median enlarged margin. Clypeus convexly inflated, tumid, without transverse depression below anterior margin of head.

Type species of subgenus: Bulbana pura DeLong.

Key to Species of Subgenus Balbana

1. Crown angularly produced, rounded at apex, more than half as long as basal width. Female segment with a deep, broad U-shaped notch at middle. (Male unknown) extensa
- 1'. Crown shorter, less angled, less than half as long as basal width. Female segment roundedly produced at middle, not notched or emarginate 2
2. Male aedeagus with a pair of short, proximal, sharp-pointed apices which are separated by a narrow, V-shaped notch. Style with apical portion curved transversely 3
- 2'. Male aedeagus with a pair of short, proximal, sharp-pointed apices separated at base by a short, pointed tooth. Style with apical portion produced obliquely, straight, and tapered to a sharp-pointed apex inflata
3. Face only weakly inflated or bulbous. Male plate convexly rounded on outer margin to a narrowed, roundedly produced apex integra
- 3'. Face strongly bulbous. Male plate convexly rounded from inner margin to a broad apex produced to its greatest length on outer margin. Male style more narrowed before pointed apex pura

Ponana (Balbana) extensa (DeLong)

Balbana extensa DeLong, 1942, p. 108.

In form and general appearance resembling female of integra but with more angularly produced crown and distinct female genitalia. Length of female 10 mm.

Head decidedly narrower than pronotum. Crown angularly produced, rounded at apex, more than half as long as wide. Face convexly roundedly inflated.

Color: Dull greenish; eyes and ocelli red.

Genitalia: Female seventh sternum with posterior margin broadly, roundedly produced either side of a rather shallow, concavely rounded excavation on median fourth.

Type: Holotype female from California in the DeLong Collection.

Remarks: This species is recorded only for California.

Ponana (Bulbana) inflata (DeLong)

Bulbana inflata DeLong, 1942, p. 108.

Resembling citrina superficially but with more produced crown, dark green without markings and with distinct male genitalia. Length of male 7 mm.

Crown bluntly, angularly produced; apex rounded, almost twice as wide between eyes at base as median length. Face strongly inflated, bulbous.

Color: Dull green washed with yellow; appendices of forewings smoky brown.

Genitalia: Male style twice curved with a dorsally curved apex which is straight on caudal margin and sharp pointed at apex. Aedeagus with lateral paired processes tapered to long, slender, pointed apices which are convergent. Shaft decidedly widened near apex, then rapidly narrowed to form a pair of short, sharply pointed apices separated by a narrow deep notch. Aedala tapered and narrow at apex.

Type: Holotype male from Texas in the DeLong Collection.

Remarks: It is reported only from Texas.

Ponana (Bulbana) pura (DeLong)

Bulbana pura DeLong, 1942, p. 108.

Resembling inflata in form and appearance but with more rounded crown and distinct genitalia. Length of male 7.5 mm.

Crown broadly rounded, twice as wide between eyes as median length, a definite furrow just back of crown margin, face strongly inflated.

Color: Dull green, unmarked.

Genitalia: Male style similar to integra but with apical portion shorter and more narrowed after curving outwardly. Aedeagus similar to integra. Plate entirely different, broadened at apex, produced to greatest length on outer margin.

Type: Holotype male from Texas in the DeLong Collection.

Remarks: Collected to date in Texas alone.

Ponana (Bulbana) integra (DeLong)

Bulbana integra DeLong, 1942, p. 109.

In general appearance resembling inflata but with crown more pointed,

face less inflated, and without the longitudinal furrow back of crown margin. Length of male 8 mm, female 9.5 mm.

Crown bluntly angled, more than half as long at middle as median width between eyes at base. Ocelli in depressions on either side.

Color: Bright to dull green. Forewings usually dull green, appendices of forewings brown.

Genitalia: Female seventh sternum with posterior margin shallowly concave either side of lateral angles to a median broad, slightly produced, convexly rounded lobe which is slightly notched at middle. Male style with a produced, rounded enlargement on the ventral or inner margin just beyond middle, apical portion narrowed, curved outwardly, and pointed at apex. Aedeagus with aedealati tapered and bluntly pointed. Shaft slender, bulbous at apex with a pair of short terminal spines between which is a sunken tooth. Plate bluntly rounded at apex, outer margin convexly rounded.

Type: Holotype male from Texas in the DeLong Collection.

Remarks: Known only from Texas.

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EXPLANATION OF PLATE I

Figure 1-2 Ponana (P.) aenea

Figure 1. Ventral view of aedeagus

Figure 2. Lateral view of style

Figure 3-4 Ponana (P.) rubida

Figure 3. Ventral view of aedeagus

Figure 4. Lateral view of style

Figure 5-6 Ponana (P.) limbatipennis

Figure 5. Ventral view of aedeagus

Figure 6. Lateral view of style

Figure 7-8 Ponana (P.) pectoralis

Figure 7. Ventral view of aedeagus

Figure 8. Lateral view of style

Figure 9-10 Ponana (P.) sparsa

Figure 9. Ventral view of aedeagus

Figure 10. Lateral view of style

Figure 11-13 Ponana (P.) limonea

Figure 11. Ventral view of aedeagus

Figure 12. Lateral view of aedeagus

Figure 13. Lateral view of style

Figure 14-15 Ponana (P.) citrina

Figure 14. Ventral view of aedeagus

Figure 15. Lateroventral view of style

Figure 16-18 Ponana (P.) scarlatina

Figure 16. Ventral view of aedeagus

Figure 17. Lateral view of aedeagus

Figure 18. Lateral view of style

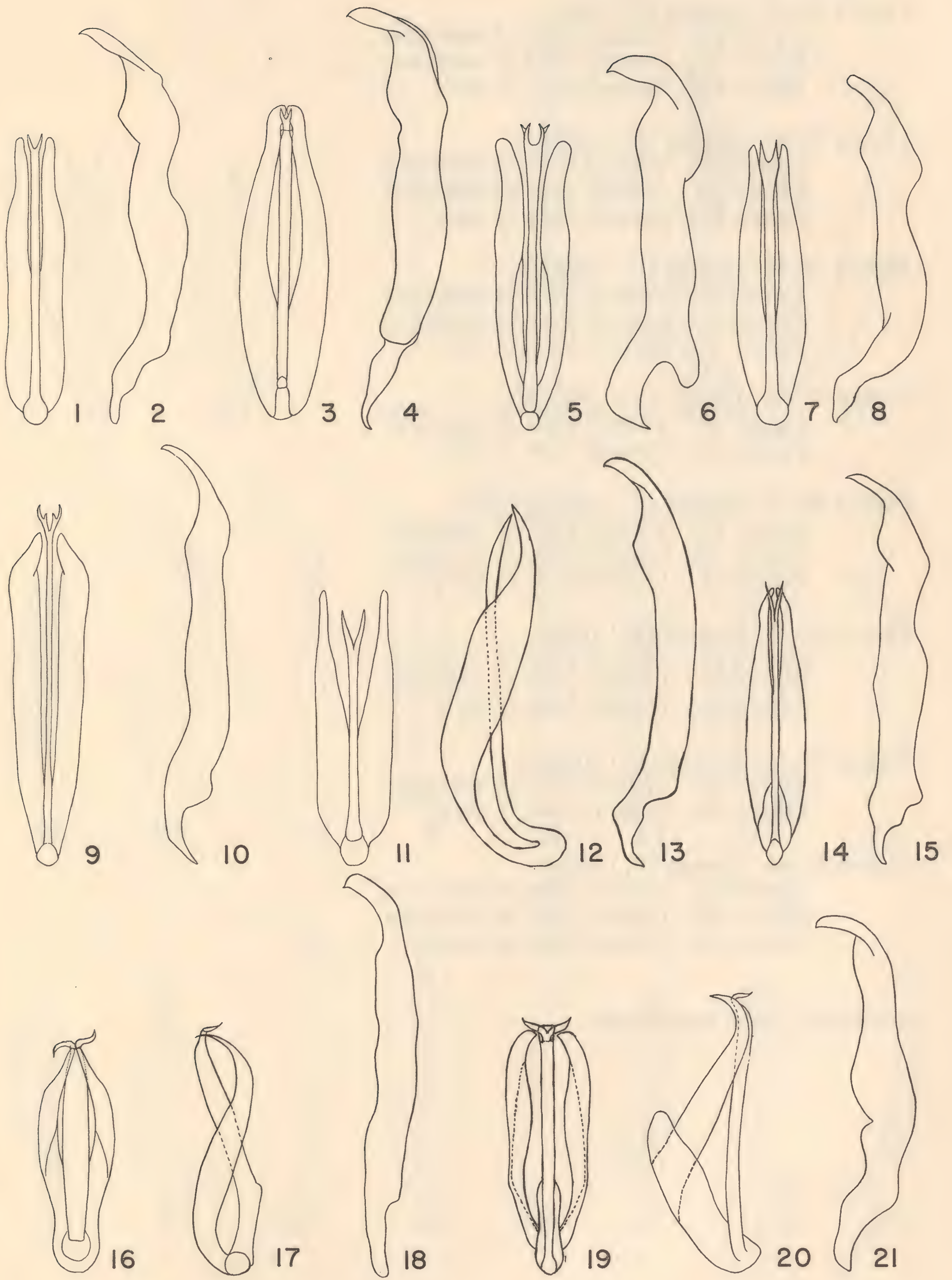
Figure 19-21 Ponana (P.) puncticollis

Figure 19. Ventral view of aedeagus

Figure 20. Lateral view of aedeagus

Figure 21. Lateral view of style

Not drawn to the same scale



EXPLANATION OF PLATE II

Figure 22-24 Ponana (P.) tena

Figure 22. Ventral view of aedeagus

Figure 23. Lateral view of aedeagus

Figure 24. Lateral view of style

Figure 25-27 Ponana (P.) aquila

Figure 25. Ventral view of aedeagus

Figure 26. Lateral view of aedeagus

Figure 27. Lateral view of style

Figure 28-30 Ponana (P.) candida

Figure 28. Ventral view of aedeagus

Figure 29. Lateral view of aedeagus

Figure 30. Lateral view of style

Figure 31-32 Ponana (P.) cacozela

Figure 31. Ventral view of aedeagus

Figure 32. Lateral view of style

Figure 33-35 Ponana (P.) punctipennis

Figure 33. Ventral view of aedeagus

Figure 34. Lateral view of aedeagus

Figure 35. Lateral view of style

Figure 36-38 Ponana (P.) velora

Figure 36. Ventral view of aedeagus

Figure 37. Lateral view of aedeagus

Figure 38. Lateral view of style

Figure 39-40 Ponana (P.) sonora

Figure 39. Ventral view of aedeagus

Figure 40. Lateral view of style

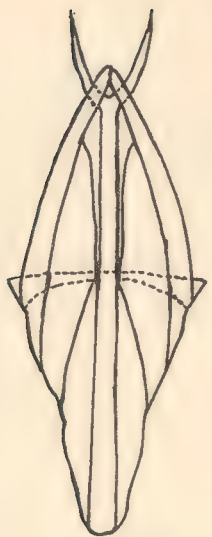
Figure 41-43 Ponana (P.) vinula

Figure 41. Ventral view of aedeagus

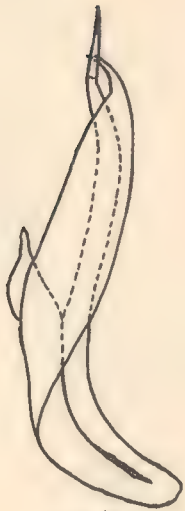
Figure 42. Lateral view of aedeagus

Figure 43. Lateral view of style

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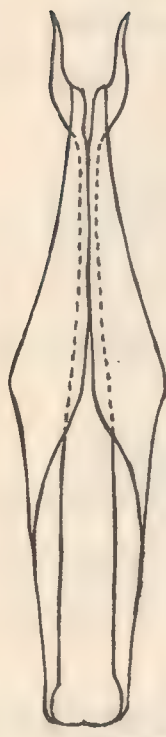
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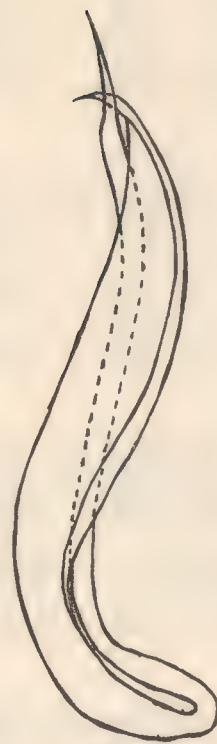
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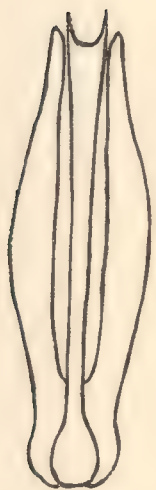
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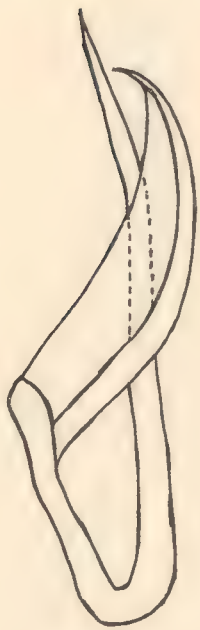
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EXPLANATION OF PLATE III

Figure 44-46 Ponana (P.) volara

Figure 44. Ventral view of aedeagus

Figure 45. Lateral view of aedeagus

Figure 46. Lateral view of style

Figure 47-49 Ponana (P.) vebera

Figure 47. Ventral view of aedeagus

Figure 48. Lateral view of aedeagus

Figure 49. Lateral view of style

Figure 50-52 Ponana (P.) xella

Figure 50. Ventral view of aedeagus

Figure 51. Lateral view of aedeagus

Figure 52. Lateral view of style

Figure 53-55 Ponana (P.) rubrapuncta

Figure 53. Ventral view of aedeagus

Figure 54. Lateral view of aedeagus

Figure 55. Lateral view of style

Figure 56-58 Ponana (P.) cincta

Figure 56. Ventral view of aedeagus

Figure 57. Lateral view of aedeagus

Figure 58. Lateral view of style

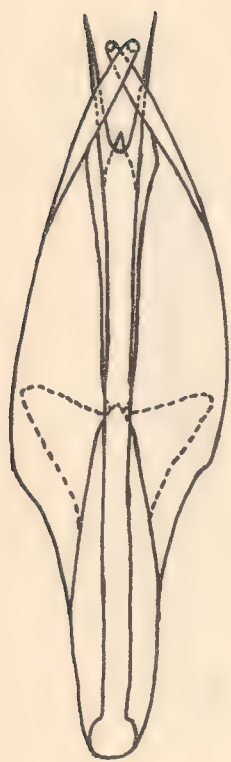
Figure 59-61 Ponana (P.) occlusa

Figure 59. Ventral view of aedeagus

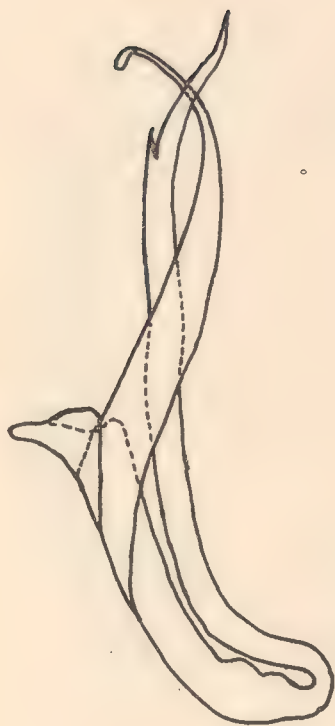
Figure 60. Lateral view of aedeagus

Figure 61. Lateral view of style

Not drawn to same scale.



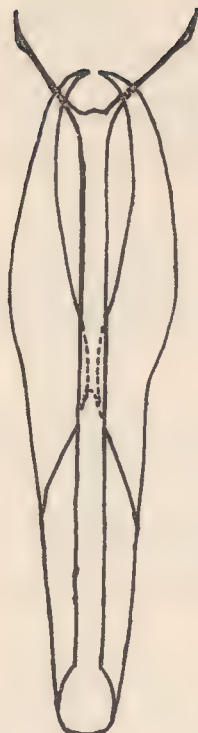
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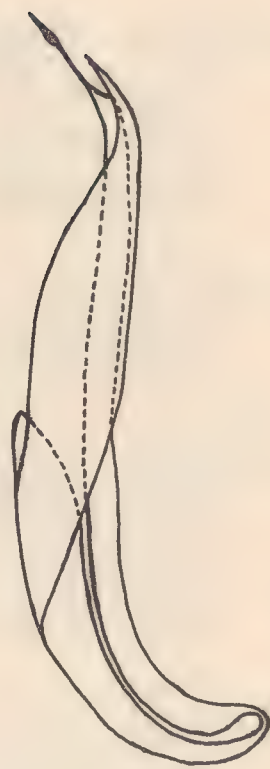
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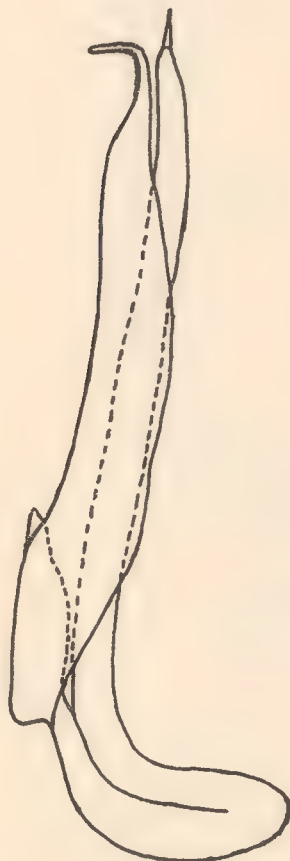
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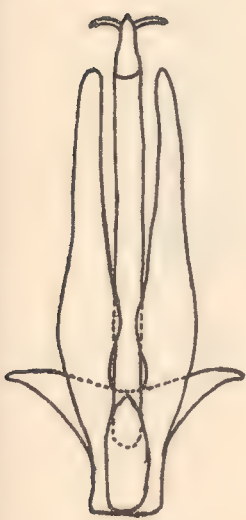
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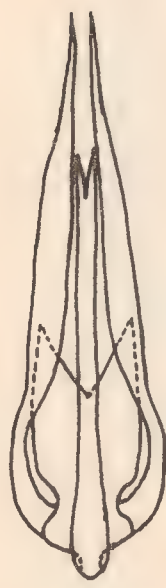
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EXPLANATION OF PLATE IV

Figure 62-64 Ponana (P.) yura

Figure 62. Ventral view of aedeagus

Figure 63. Lateral view of aedeagus

Figure 64. Lateral view of style

Figure 65 Ponana (P.) floridana

Figure 65. Ventral view of aedeagus

Figure 66-68 Ponana (P.) divergens

Figure 66. Ventral view of aedeagus

Figure 67. Lateral view of aedeagus

Figure 68. Lateral view of style

Figure 69-71 Ponana (P.) chiapa

Figure 69. Ventral view of aedeagus

Figure 70. Lateral view of aedeagus

Figure 71. Lateral view of style

Figure 72-74 Ponana (P.) xola

Figure 72. Ventral view of aedeagus

Figure 73. Lateral view of aedeagus

Figure 74. Lateral view of style

Figure 75-76 Ponana (P.) quadralaba

Figure 75. Ventral view of aedeagus

Figure 76. Lateral view of style

Figure 77-79 Ponana (P.) notula

Figure 77. Ventral view of aedeagus

Figure 78. Lateral view of aedeagus

Figure 79. Lateral view of style

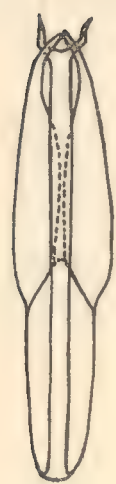
Figure 80-82 Ponana (P.) proprior

Figure 80. Ventral view of aedeagus

Figure 81. Lateral view of aedeagus

Figure 82. Lateral view of style

Not drawn to the same scale.



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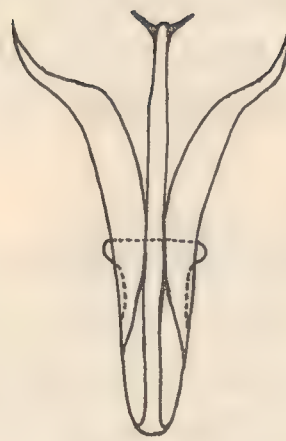
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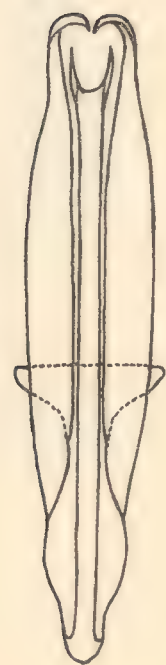
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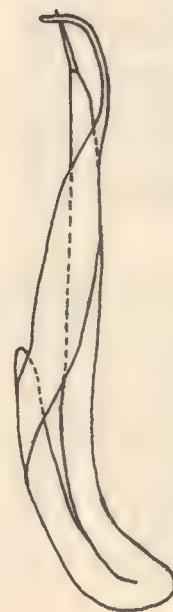
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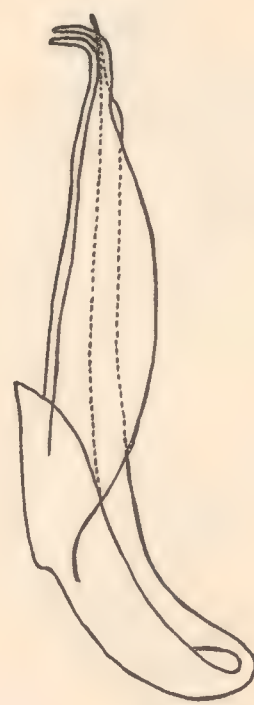
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EXPLANATION OF PLATE V

Figure 83-87 Ponana (P.) pamana

- Figure 83. Ventral view of aedeagus
- Figure 84. Lateral view of aedeagus
- Figure 85. Lateroventral view of style
- Figure 86. Ventral view of plate
- Figure 87. Lateral view of pygofer

Figure 88-92 Ponana (P.) xarela

- Figure 88. Ventral view of aedeagus
- Figure 89. Lateral view of aedeagus
- Figure 90. Lateroventral view of style
- Figure 91. Ventral view of plate
- Figure 92. Lateral view of pygofer

Figure 93-97 Ponana (P.) guatama

- Figure 93. Ventral view of aedeagus
- Figure 94. Lateral view of aedeagus
- Figure 95. Lateroventral view of style
- Figure 96. Ventral view of plate
- Figure 97. Lateral view of pygofer

Figure 98-102 Ponana (P.) fortina

- Figure 98. Ventral view of aedeagus
- Figure 99. Lateral view of aedeagus
- Figure 100. Lateroventral view of style
- Figure 101. Ventral view of plate
- Figure 102. Lateral view of pygofer

All drawn to the same scale.



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EXPLANATION OF PLATE VI

Figure 103-107 Ponana (P.) vulana

- Figure 103. Ventral view of aedeagus
- Figure 104. Lateral view of aedeagus
- Figure 105. Lateroventral view of style
- Figure 106. Ventral view of plate
- Figure 107. Lateral view of pygofer

Figure 108-112 Ponana (P.) pana

- Figure 108. Ventral view of aedeagus
- Figure 109. Lateral view of aedeagus
- Figure 110. Lateroventral view of style
- Figure 111. Ventral view of plate
- Figure 112. Lateral view of pygofer

Figure 113-117 Ponana (P.) xena

- Figure 113. Ventral view of aedeagus
- Figure 114. Lateral view of aedeagus
- Figure 115. Lateroventral view of style
- Figure 116. Ventral view of plate.
- Figure 117. Lateral view of pygofer

Figure 118-122 Ponana (P.) valeda

- Figure 118. Ventral view of aedeagus
- Figure 119. Lateral view of aedeagus
- Figure 120. Lateroventral view of style
- Figure 121. Ventral view of plate
- Figure 122. Lateral view of pygofer

All drawn to the same scale.



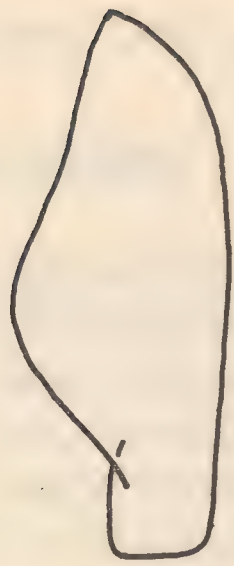
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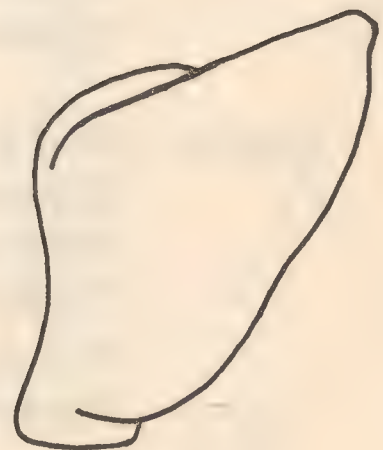
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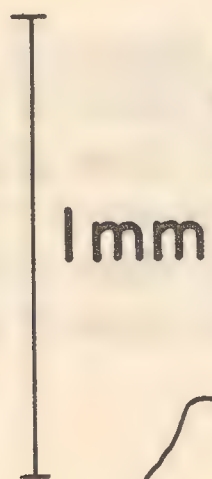
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EXPLANATION OF PLATE VII

Figure 123-127 Ponana (P.) aurata

- Figure 123. Ventral view of aedeagus
- Figure 124. Lateral view of aedeagus
- Figure 125. Lateroventral view of style
- Figure 126. Ventral view of plate
- Figure 127. Lateral view of pygofer

Figure 128-132 Ponana (P.) tura

- Figure 128. Ventral view of aedeagus
- Figure 129. Lateral view of aedeagus
- Figure 130. Lateroventral view of style
- Figure 131. Ventral view of plate
- Figure 132. Lateral view of pygofer

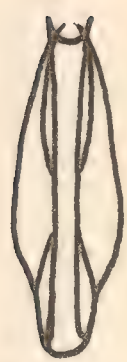
Figure 133-137 Ponana (P.) xila

- Figure 133. Ventral view of aedeagus
- Figure 134. Lateral view of aedeagus
- Figure 135. Lateroventral view of style
- Figure 136. Ventral view of plate
- Figure 137. Lateral view of pygofer

Figure 138-142 Ponana (P.) distortia

- Figure 138. Ventral view of aedeagus
- Figure 139. Lateral view of aedeagus
- Figure 140. Lateroventral view of style
- Figure 141. Ventral view of plate
- Figure 142. Lateral view of pygofer

All drawn to the same scale.



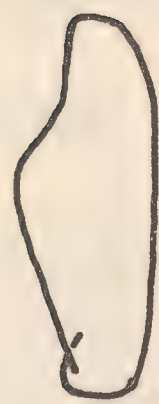
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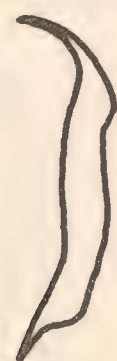
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EXPLANATION OF PLATE VIII

Figure 143-147 Ponana (P.) vandera

- Figure 143. Ventral view of aedeagus
- Figure 144. Lateral view of aedeagus
- Figure 145. Lateroventral view of style
- Figure 146. Ventral view of plate
- Figure 147. Lateral view of pygofer

Figure 148-152 Ponana (P.) vedala

- Figure 148. Ventral view of aedeagus
- Figure 149. Lateral view of aedeagus
- Figure 150. Lateroventral view of style
- Figure 151. Ventral view of plate
- Figure 152. Lateral view of pygofer

Figure 153-157 Ponana (P.) yena

- Figure 153. Ventral view of aedeagus
- Figure 154. Lateral view of aedeagus
- Figure 155. Lateroventral view of style
- Figure 156. Ventral view of plate
- Figure 157. Lateral view of pygofer

Figure 158-162 Ponana (P.) tama

- Figure 158. Ventral view of aedeagus
- Figure 159. Lateral view of aedeagus
- Figure 160. Lateroventral view of style
- Figure 161. Ventral view of plate
- Figure 162. Lateral view of pygofer

All drawn to the same scale.



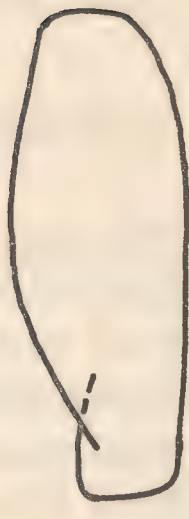
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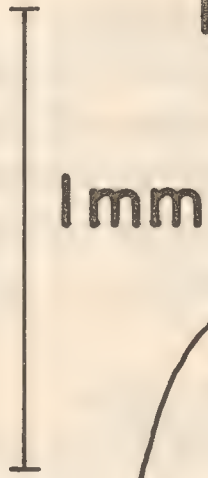
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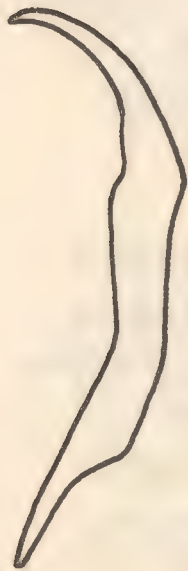
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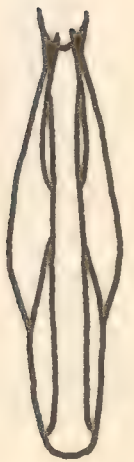
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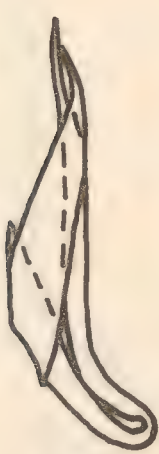
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All drawn to the same scale.



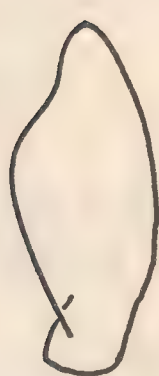
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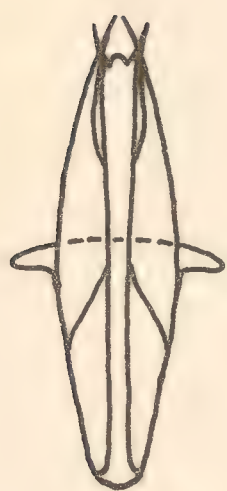
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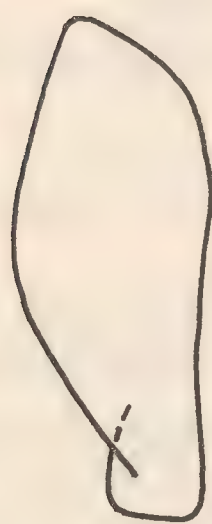
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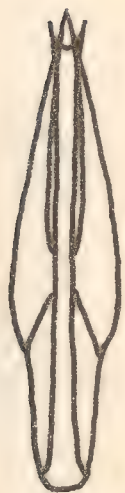
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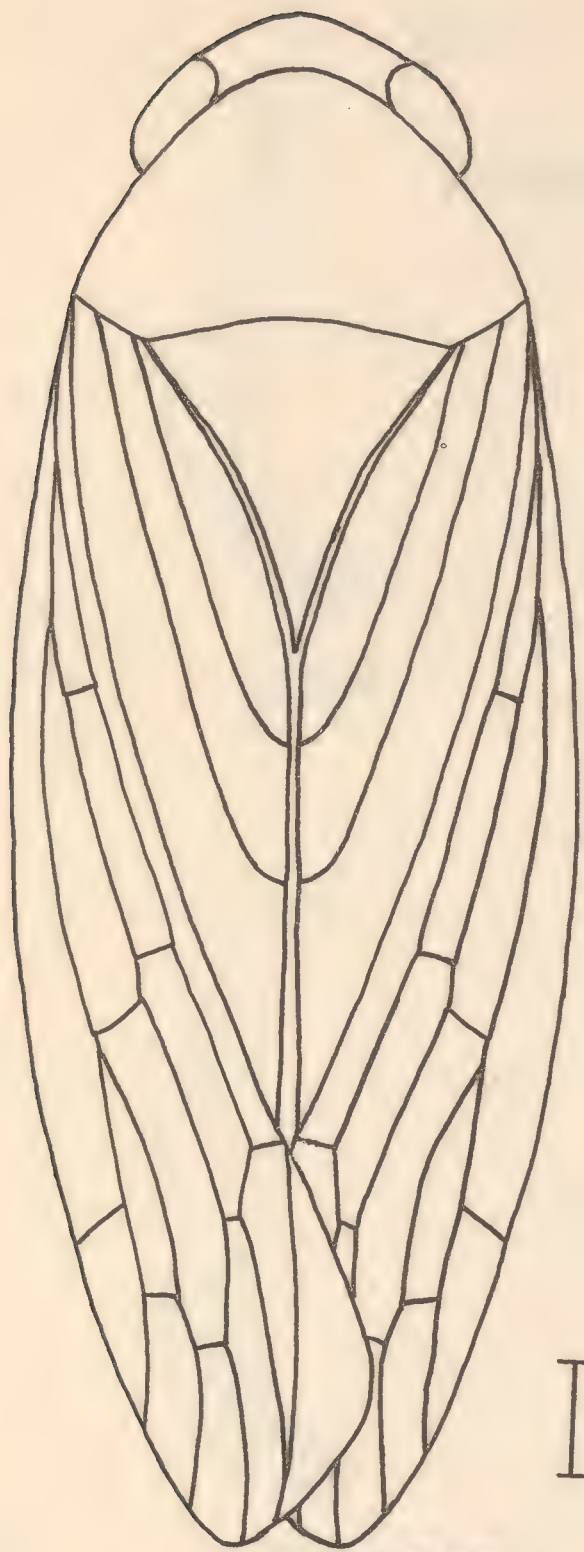
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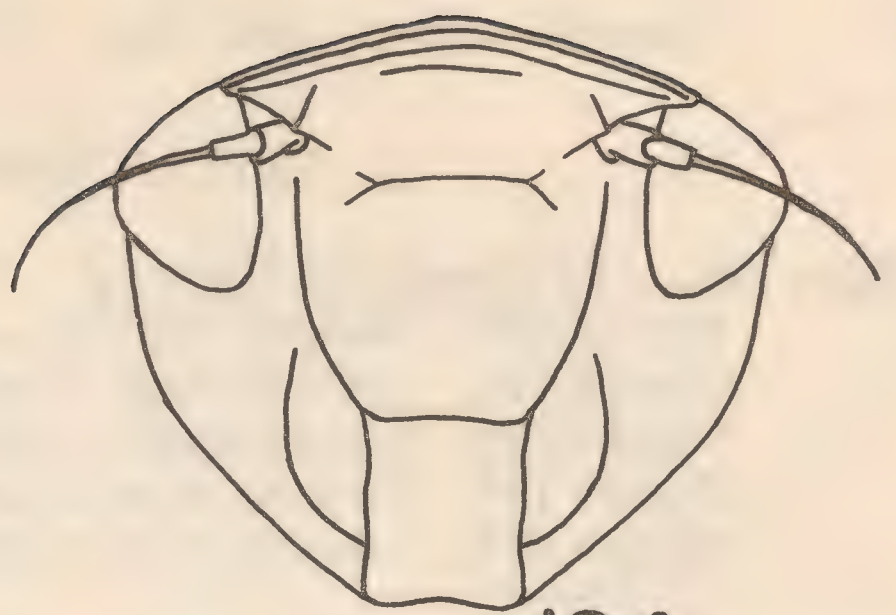
Figure 192. Lateral view of pygofer

Figures 186-192 drawn to the same scale.



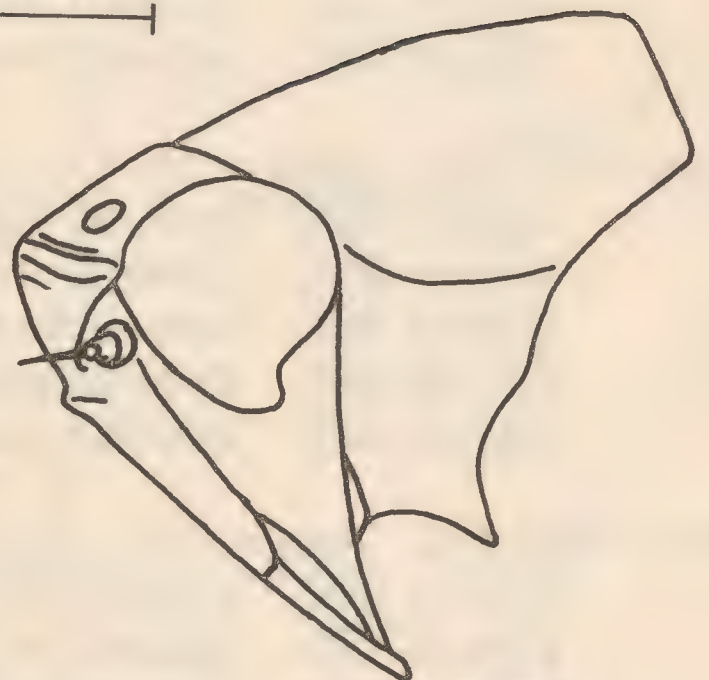
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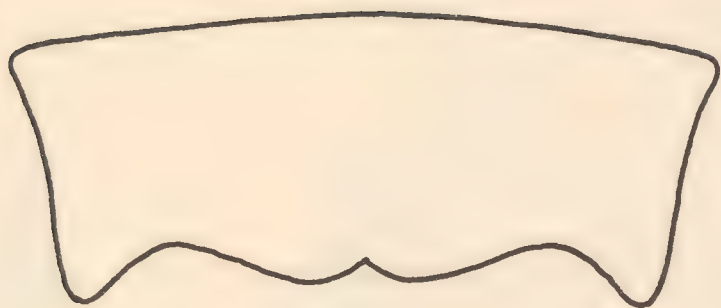


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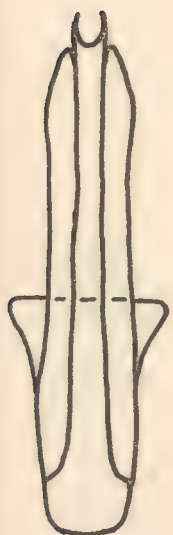


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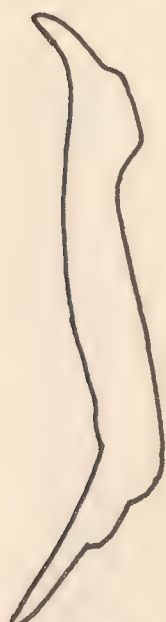
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All drawn to the same scale.



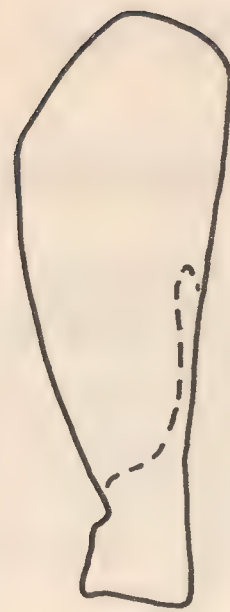
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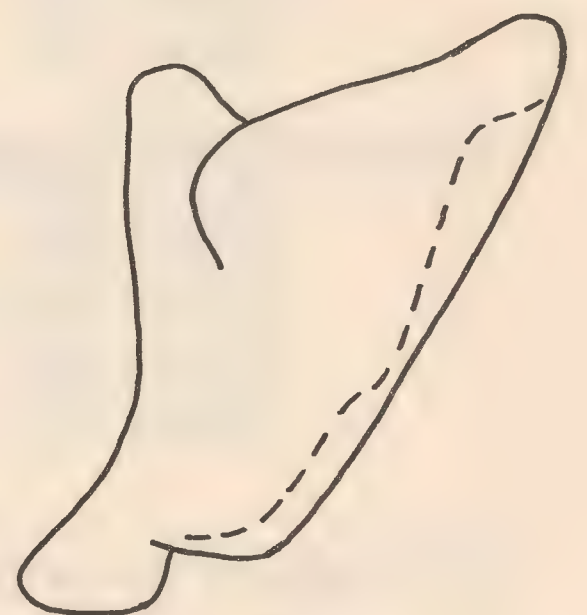
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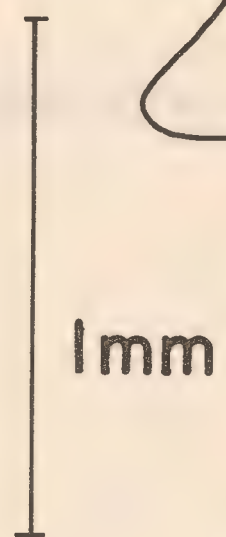
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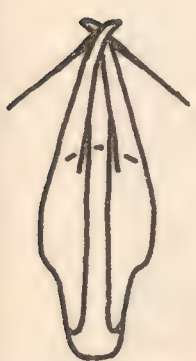
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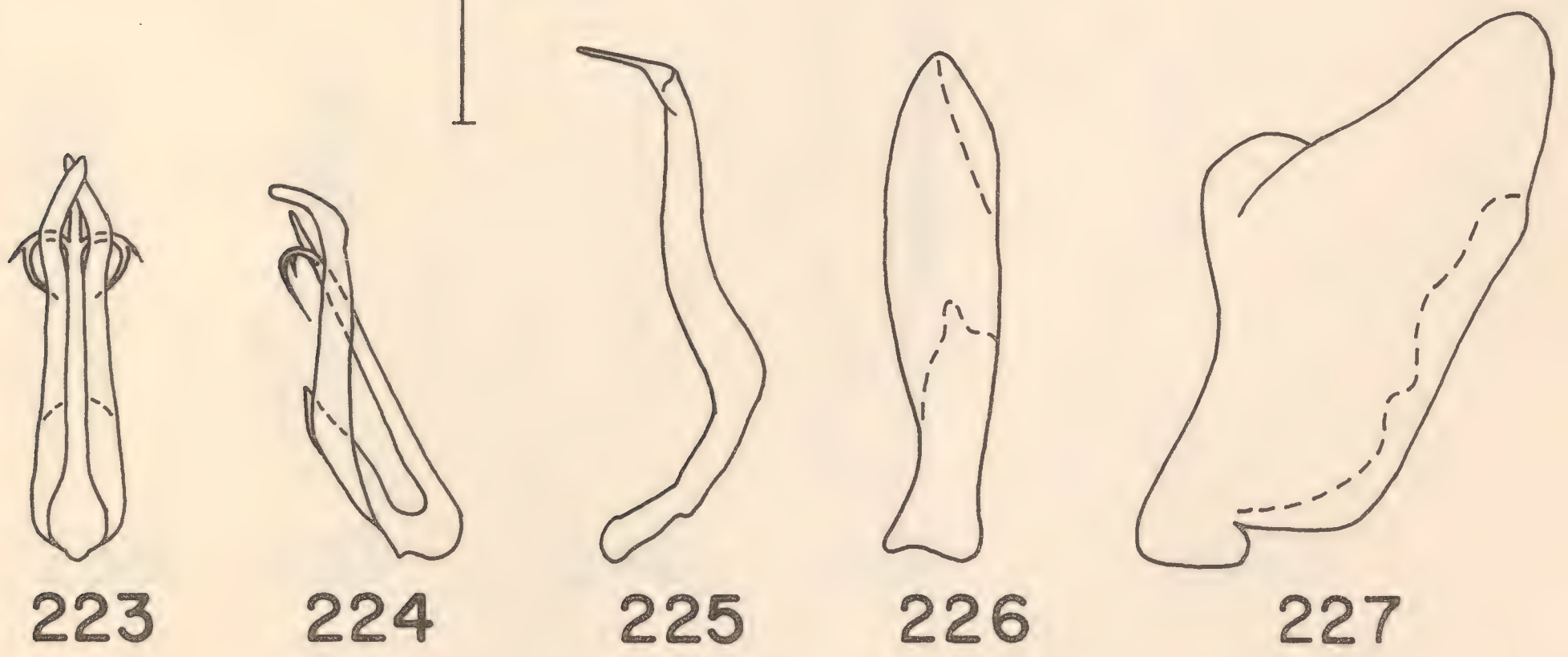
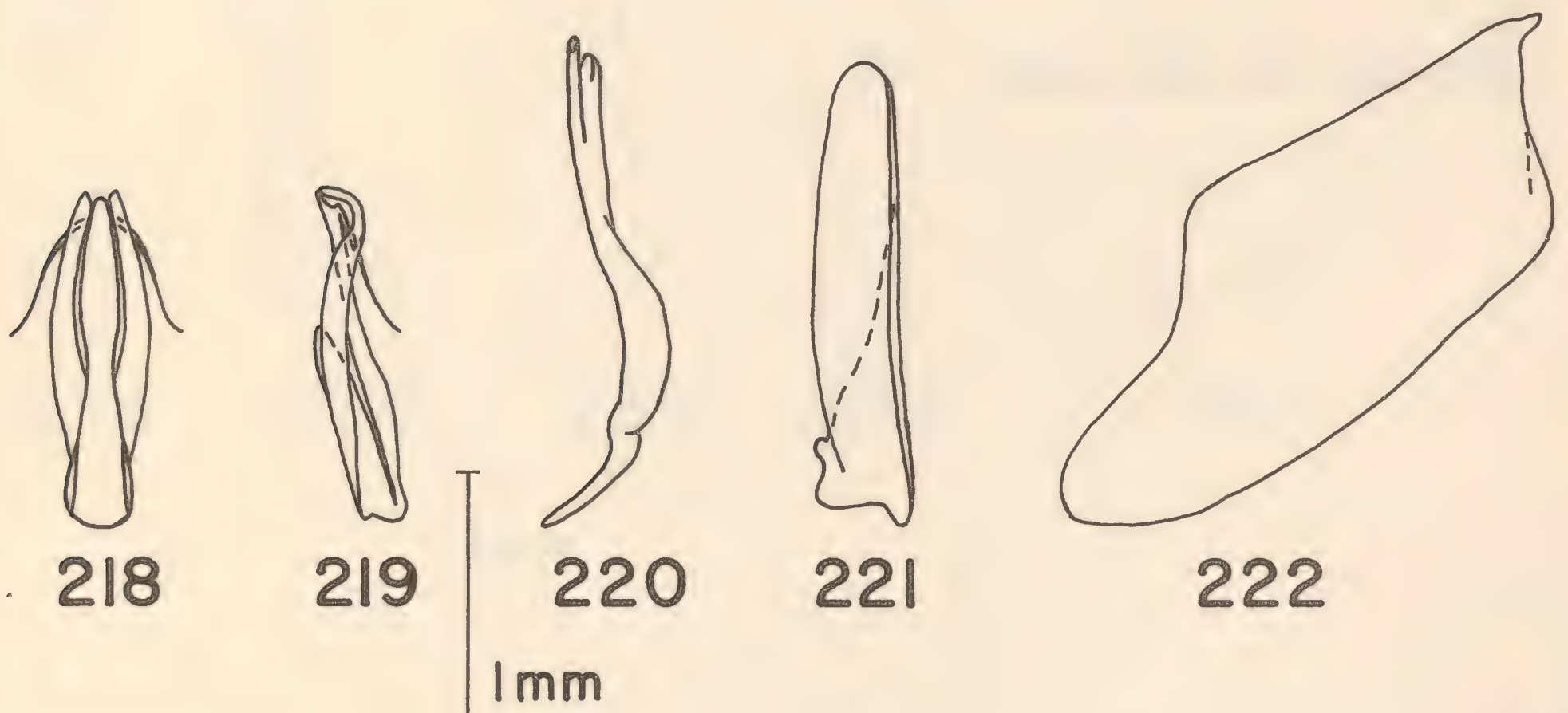
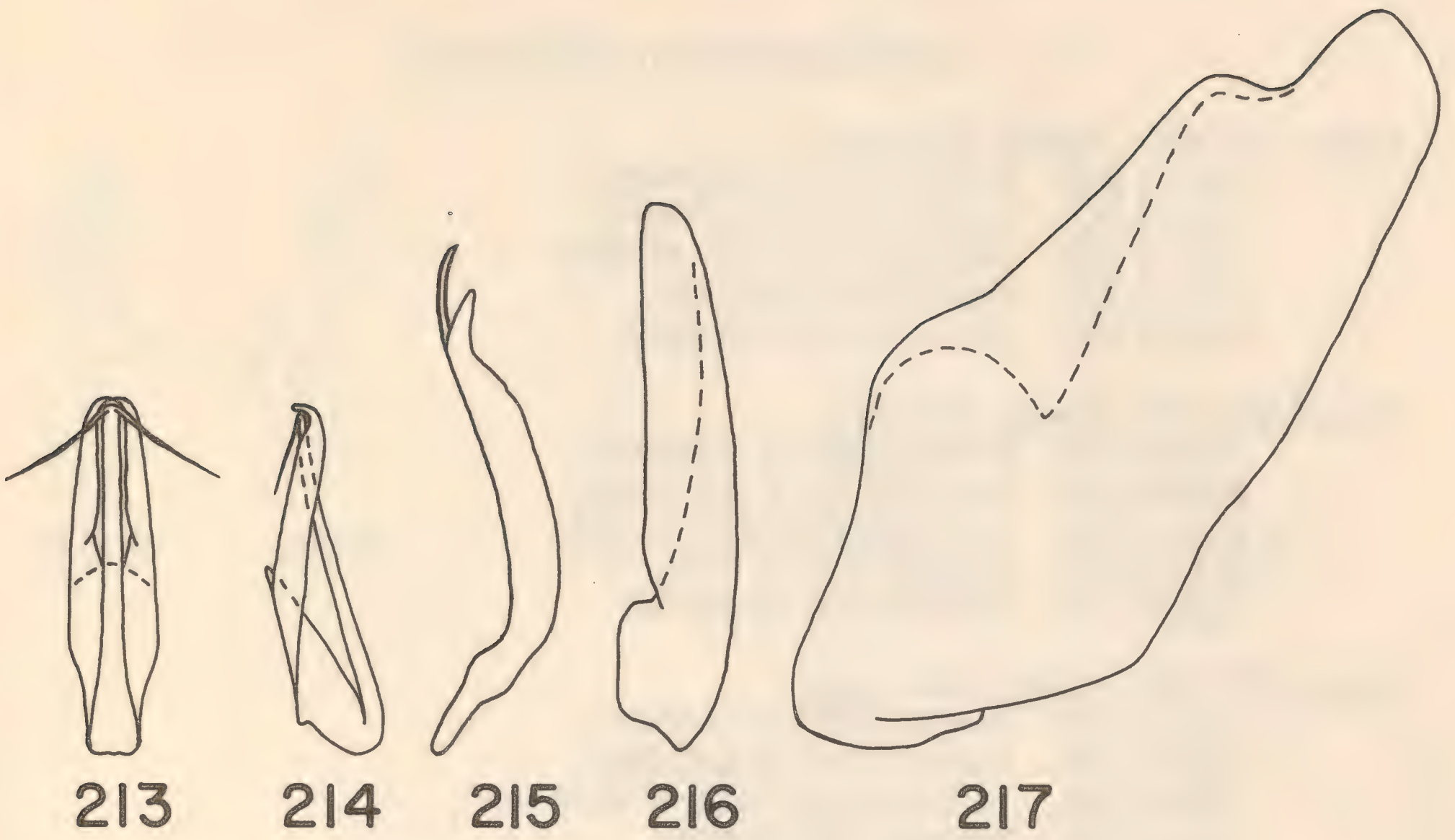
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All drawn to the same scale.



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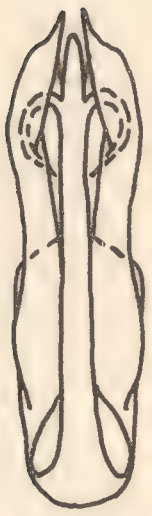
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All drawn to the same scale.



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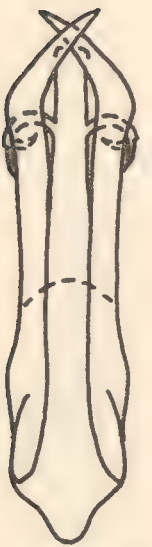
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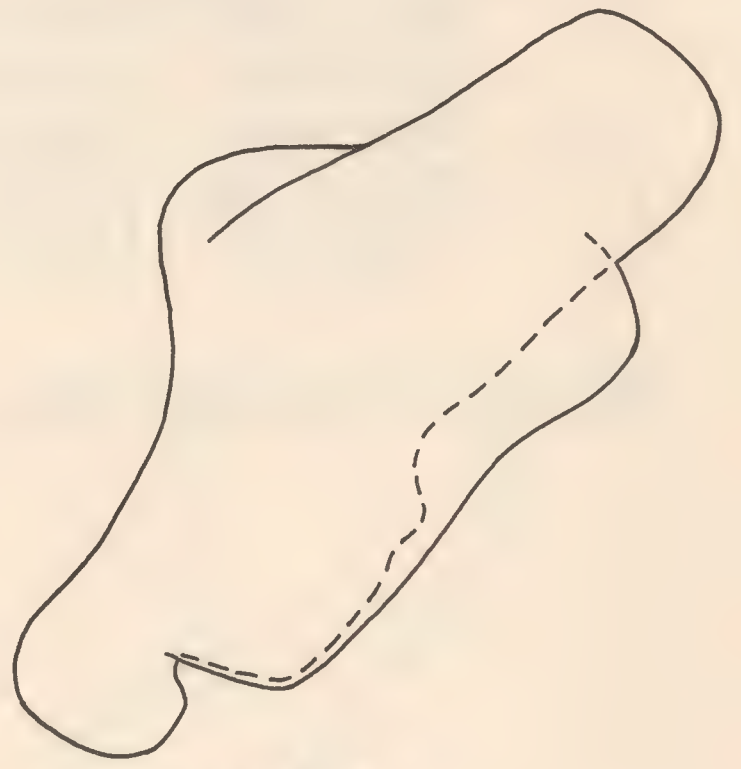
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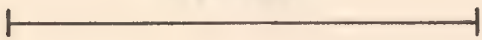


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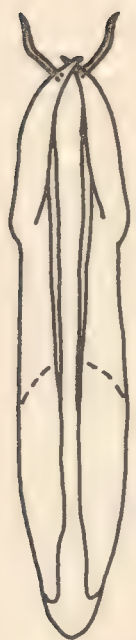
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All drawn to the same scale.



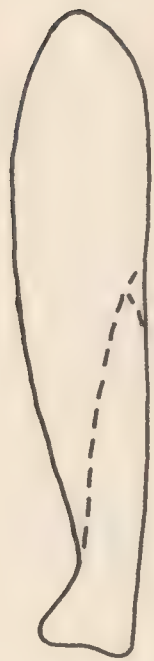
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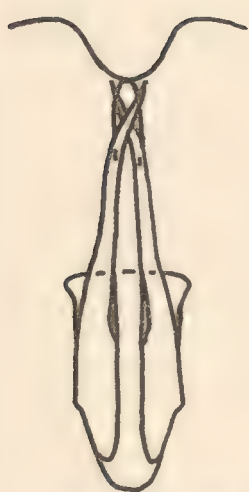


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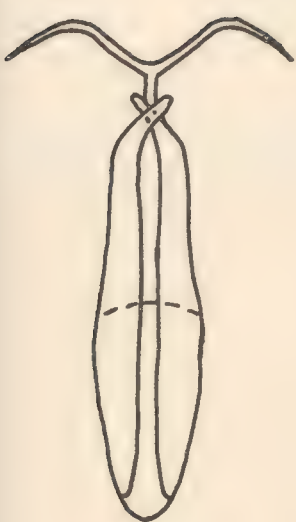
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